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840

B79

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                                                                     1800
gactagagaa tggggctgcc agaactagtg ggaagctccc tagaaatggt gacatcgccc
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                                                                     1898
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atgggggtat tacagagtgg gcatactggg acgtgaacat ccttctggaa tgcaaacgga
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cacttatgtg cagcgtatgg aaaatgatct ttacagaaat cttgtttaca tgcatcacat
                                                                      540
tttactggaa gaaaatctag ctgcttgcaa gtcttttctg aacaatgctt ccccaaatca
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                                                                     360
                                                                     420
gegeatggat ggteecette etetaceata caggeactat attgeaataa tggetgeage
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<213> Homo sapiens

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     <210> 1301
     <211> 7545
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc_feature
     <222> (1) ... (7545)
     <223> n = a,t,c or g
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tgetetaaat tggeetteat tageteteae ggeaetgaaa aacaaeteea atgeatgeet
                                                                      120
atggaaggga gaggcagagc ctctagctcc atttcagacc tgcaaggaaa gggctttgag
                                                                      180
aagggaactg gggagaagca cgttccaggt gtgggttcag ctcggcactc gccacaggcc
                                                                      240
teegeaggtg geteteettg geagegagge aaggegeaaa eeegetgget tgggaageet
                                                                      300
gaccetggca ggaagegaeg coggggttet cogcaagaag aaggeggeet cegggtgteg
                                                                      360
gccgcagcca ggctactgtg ctccggggca aaccgctgca aagtcctagt gaggcagaac
                                                                      420
                                                                      480
tegaecceca acaeteagea geetgeegte caeccateca caecceegte tegeeccetg
```

```
<400> 1295
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tattggagtt cctgaggcag gaaagagtta tggtaggttg agaatcagcg ctcacgctag
                                                                     180
ecceptette cagtggaggt catggtcact gggcatcagg agttgegete ctcagtcett
                                                                     240
tcagcttagg aaaggcatcc cagttgagga aaggaagttt ccttttgata gactcaaaga
                                                                     300
gggcgtgcca gttcaggaac tcatcagcct taaacgcaga tcgcaatttg tcgatgttca
                                                                     360
ggaacggggt gttaaaggcc tcgggtcgtg acgcataatt ctcaatggtg ctttcttcct
                                                                     420
caggaccacc cagggtggct ccctgggcag agtggagcac caggagggag aggagctcca
                                                                     480
                                                                     518
cggcaggaag gaccgggatc ttcatggcgt caagtttg
     <210> 1296
     <211> 551
     <212> DNA
     <213> Homo sapiens
     <400> 1296
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categeagga gaagtegetg geccagttee gggagaacat ccaagatgtg ctatetgege
tgcccaatcc tgatgactac ttcctcctgc gctggctcca agctcggagc tttgacctgc
                                                                      180
agaaatcaga ggacatgctg aggaagcata tggagttccg gaagcaacaa gacctggcca
                                                                      240
acatecttge etggeagece ceagaggtgg teaggetgta caacgetaac ggeatatgeg
                                                                      300
gccacgacgg tgagggcagc cctgtctggt accacattgt gggaagccag gaccccaaag
                                                                      360
                                                                      420
gestettget eteagestes aaacaggagt tgsteaggga cagetteegg agetgegage
tgctcctgcg ggagtgtgag ctgcagagtc agaagctggg gaagagggtg gagaaaatca
                                                                      480
                                                                      540
tagctatttt tggtctcgaa gggctgggcc tgagggatct gtggaagcca ggaatagagc
                                                                      551
 ttctccagga g
      <210> 1297
      <211> 410
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
      <222> (1) ... (410)
      <223> n = a,t,c or g
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 gttgtggete egtgtgetet gaccaggget geggecaaga eetetgteag gagaeetget
                                                                      120
 geogececag etgetgtgag accaectget geaggaceae etgetgeege eccagetgtt
                                                                      180
                                                                      240
 gtgtatecag etgetgeagg ceccagtget gecagtetgt gtgetgecaa cecaettgtt
 ecogecceag etgetgteag accacetgtt geaggaceae etgetacege eccagetgtt
                                                                      300
 gtgtgtccag ctgctgcagg ccccagtgct gccagcctgt gtgctgccaa cccacctgct
                                                                      360
                                                                       410
 gtegeeceag etgetgtgag acgaectget gecaecetan gtgetgeate
      <210> 1298
      <211> 453
      <212> DNA
      <213> Homo sapiens
       <400> 1298
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                                                                        60
```

gccgagtctg aggaagaaga ggcgtgtgt 749 <210> 1293 <211> 989 <212> DNA <213> Homo sapiens <400> 1293 cccactgatg tccctagtcc gtgtggtgga attcgtggca gccagcagtg cccagaagac 60 cccctcccgc ctggaaaact actacatggt atgcaaggca gatgagaaat ttaatcagct 120 ggtccatttt cttcgcaatc ataagcagga gaaacacctg gtcttcttca ggtactcctc 180 tggtctctgt ggtagaggca tcagggattc agccagaatg tgcagcacct gtgcctgtgt 240 ggaatactat gggaaggctc tggaagtgct ggtgaagggc gtgaagatta tgtgcattca 300 cggaaagatg aaatataaac gcaataagat cttcatggag ttccgcaaat tgcaaagtgg 360 gattttagtg tgcactgatg tgatggcccg gggaattgat attcctgaag tcaactgggt 420 tttgcagtat gaccetecca gcaatgcaag tgcettegtg categetgeg gtegcacage 480 tegeattgge caegggggea gegetetggt gtteeteetg eccatggaag agteatacat 540 caattteett geaattaace aaaaatgeee eetgeaggag atgaageee agagaacae 600 ageggaeett etgecaaaac teaagteeat ggeeetgget gaeagagetg tgtttgaaaa 660 gggcatgaaa gcttttgtgt catatgtcca agcttatgca aagcatgaat gcaacctgat 720 tttcagatta aaggatcttg attttgccag ccttgctcga ggttttgccc tgctgaggat 780 gcccaagatg ccagaattga gagggaagca gtttccagat tttgtgcccg tggacgttaa 840 taccgacacg attccattta aagataaaat cagagaaaag cagaggcaga aactcctgga 900 gcaacaaaga agagagaaaa cagaaaatga agggagaaga aaattcataa aaaataaagc 960 ttggtcaaag cagaaggcca aaaaaaaaa 989 <210> 1294 <211> 1042 <212> DNA <213> Homo sapiens <400> 1294 tacaactttg ccagcactac agcctaagct tccagagtgg acacggagaa gggcatcaga 60 aaaccattet ggtgaggtee acacccataa gteaccatgt acaaggactg categagtee 120 actggagact attttettet etgtgacgee gaggggeeat ggggcateat tetggagtee 180 etggecatac ttggeategt ggteacaatt etgetaetet tageatttet etteeteatg 240 egaaagatee aagaetgeag eeagtggaat gteeteecea eeeageteet etteeteetg 300 agtgtcctgg ggctcttcgg actcgctttt gccttcatca tcgagctcaa tcaacaaact 360 geoccegtae getaetttet etttggggtt etetttgete tetgtttete atgeetetta 420 gctcatgcct ccaatctagt gaagctggtt cggggttgtg tctccttctc ctggacgaca 480 attetgtgca ttgctattgg ttgcagtetg ttgcaaatca ttattgccac tgagtatgtg 540 acteteatea tgaccagagg tatgatgttt gtgaatatga caccetqcca qeteaatgtq 600 gacttigtig tactociggt ctatgtcctc ttcctgatgg ccctcacatt cttcgtctcc 660 aaagccacct totgtggccc gtgtgagaac tggaagcagc atggaagget catctttatc 720 actgtgctct tctccatcat catctgggtg gtgtggatct ccatgctcct gagaggcaac 780 ccgcagttcc agcgacagcc ccagtgggac gacccggtcg tctgcattgc tctggtcacc 840 aacgcatggg ttttcctgct gctgtacatc gtccctgagc tctgcattct ctacagatcg 900 tgtagacagg agtgecettt acaaggcaat geetgeeeeg teacageeta ecaacacage 960 ttccaagtgg agaaccagga gctctccaga gataaatgga aggtcttact caactcggac 1020 ttcctatcac acagtggtgc ag 1042 <210> 1295 <211> 518

<212> DNA

<213> Homo sapiens

<222> (1)...(982) <223> n = a,t,c or g

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acacacccag gegegegege gegtteceae tegeaceaeg caggagtgge ecceggeate
                                                                      180
cctaccetce tteccecacee ccaccacaee egeteaceag eteggetaet getegeteeg
getgeegeeg eegeegeege egaegeeace accaetgett eetetgetge ggggeeacag
                                                                      240
ccttgagtgt cattcaaggg acagcacaac ctcatccaag ctctcctacc tctgcccagc
                                                                      300
cgtgcctctc atcctcccca ttcctcgtcc acactccatc caaagaagag ggaaagcacc
                                                                      360
gaatagaggg gggcgaaggc aaagtetget gttetteeee etgggeeeee ttgeteetee
                                                                      420
atoctoatto totoaccaco agoccocota accecaagga goccaggaac tgaggogact
                                                                      480
cgccccactg ccatgtccaa aagcttgaaa aagaaaagcc actggactag caaagtccat
                                                                      540
gagagtgtca ttggcaggaa cccggagggc cagctgggct ttgaactgaa ggggggcgcc
                                                                      600
gagaatggac agttccccta cctgggggag gtgaagcccg gcaaggtggc ctatgagagc
                                                                      660
ggcagcaaat tggtgtcgga ggagctgctg ctggaggtga acgagacccc cgtggcgggg
                                                                      720
ctcaccatca gggacgtgct ggccgtgatc aaacactgca aggaccccct ccggctcaag
                                                                      780
                                                                      840
tgtgtcaagc aaggtgagag cageggettg etcagtgttt tgeegggegg tgggaeeget
cggggcgcag ggcaatgaaa gggtggccgc gcatgttgaa gggggtgtgt tgcgcgatga
                                                                      900
tggggtgggg gccagagagc acccgcagtg caagtgagtt tcgccgggga ttcgacgaaa
                                                                      960
                                                                      982
tegtnneceg ggaatteegg ac
     <210> 1291
     <211> 591
     <212> DNA
     <213> Homo sapiens
     <400> 1291
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                                                                       60
ctgaccaggg agcagctcgc tecaggegec cageegagge ceceageeca gtgggageaa
                                                                      120
gtcatagaga acaattcgag agacagagag acggagcgcg ctttcctgct cagtcctgaa
                                                                      180
aagtgagceg etecegggtt tgcaacetca agettegeag cageggegge ggeggetgee
                                                                      240
 gggaaggagg caggtgcagg tgcaggaggg aggcggctct gggctccgcg cctgggtctt
                                                                      300
 ggccatggcc tcggtcctgg ggagcggcag agggtctgga gggctgagca gtcaactcaa
                                                                      360
 atgcaagtcc aagaggagga ggaggcggag gtccaagcgg aaagataaag taagcatatt
                                                                      420
 gtcaaccttc ctcgctcctt tcaagcacct gagtcctggc atcacaaaca cggaggatga
                                                                      480
 cgacaccete agtaccagea gegeggaggt gaaggagaac egcaacgtgg gcaacetgge
                                                                      540
 egegeggeca eegeceteeg gggaeeggge eeggggegge gegaeeegge g
      <210> 1292
      <211> 749
      <212> DNA
      <213> Homo sapiens
      <400> 1292 -
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                                                                       120
 caccgatgee eggacecect etgtettetg etagacatge tetteetete gttteatgea
                                                                       180
 ggetettggg aaagetggtg etgetgetge etgatteeeg eegacagaee ttgggaeegg
                                                                       240
 ggccaacact ggcagctgga gatggcggac acgagatccg tgcacgagac taggtttgag
                                                                       300
                                                                       360
 geggeegtga aggtgateca gagtttgeeg aagaatggtt cattecagee aacaaatgaa
 atgatgetta aattttatag ettetataag eaggeaactg aaggaceetg taaaetttea
                                                                       420
 aggeotggat titgggatee tattggaaga tataaatggg atgettggag tteactgggt
                                                                       480
 gatatgacca aagaggaagc catgattgca tatgttgaag aaatgaaaaa gattattgaa
                                                                       540
 actatgccaa tgactgagaa agttgaagaa ttgctgcgtg tcataggtcc attttatgaa
                                                                       600
 attgtcgagg acaaaaagag tggcaggagt tctgatataa cctcagatct tggtaatgtt
                                                                       660
 ctcacttcta ctccaaacgc caaaaccgtt aatggtaaag ctgaaagcag tgacagtgga
```

```
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                                                                       120
caagetetge aggetggeta gegggeagac cecageecca egteetgeta eccacetaeg
                                                                       180
aaggatccgg ggatgggcag cgccacccgg cccgctccag agtcagcatg ggtctccgtg
                                                                       240
aggccgggtg acgctccaga atgggagaca agccaatttg ggagcagatt ggatccaqct
                                                                       300
tcattcaaca ttactaccag ttatttgata atgatagaac ccaactaggc gcaatttacg
                                                                       360
taagtttcca gctctagggc cagaatggac cctaggggat caatttggat gttgggccag
                                                                       420
tgtgtccagt tcacaagttc tggcagccct atctggactg gctacacctc tgtatctgaa
                                                                       480
cttttgtcca cgggacaggg gtctgacgct tggcccaagt aattacctgg tctatacttt
                                                                       540
tecttttgte aacttecaca agggtgagaa teetgetgtt etgggettge cattecatgt
                                                                      600
ggccagcatt tgtc
                                                                      614
     <210> 1288
     <211> 478
     <212> DNA
     <213> Homo sapiens
     <400> 1288
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ggteegecag acagagacce cacgetttet cettetgeet ttateetgeg agecatecag
                                                                      120
caggetgtgg gaageteect geagggggac etgeecaatg ataaagatgg eteteggtgt
                                                                      180
catggeette gatggeggeg etgeeggagt ecaeggteag ageeeegtte ecaggaatea
                                                                      240
gggggcactg acacggctac tgtgttggac atggccacgg acagettect cgcagggctg
                                                                      300
gtgagtgtee tggateeece ggataeetgg gtteecagee geetggaeet geggeetgge
                                                                      360
gaaagtgagg acatgctgga gctggtggct gaggtccgaa tcggggacag aqatcccatc
                                                                      420
cctctgcctg tgcccagcct gctgccccgt ctcagggcct ggaggacggg caaaacgg
                                                                      478
     <210> 1289
     <211> 438
     <212> DNA
     <213> Homo sapiens
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     <221> misc feature
     <222> (1)...(438)
     \langle 223 \rangle n = a,t,c or g
     <400> 1289
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                                                                      120
etgeetgete egeeceagae etgteggega aaggtagttt atgeeaaegt gaetteatte
                                                                      180
atacagatga accaaggatc gggatagcag tataaaatta gaatcaagac agctgactgc
                                                                      240
tcagcaggat gccatcaact aacagagcag gcagcctgaa ggaccctgaa attgcagagc
                                                                      300
tettetteaa agaagateea gagaagetet teacagatet cagagaaatt ggecatggaa
                                                                      360
gctttggagc agcgtatttt gcacgagatg tgcgtaccaa tgaagtggtg gccatcaaga
                                                                      420
aaatgtctta tagtggaa
                                                                      438
     <210> 1290
     <211> 982
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc_feature
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ettegtgate ttggtegtea eccegeteet getgetgeea etegteatte tgatgeeege
                                                                     120
caagtttgtc aggtgtgcct acgtcatcat cctcatggcc atttactggt gcacagaagt
                                                                     180
catecetetg getgteacet eteteatgee tgtettgett tteecaetet tecagattet
                                                                     240
ggactccagg caggtgtgtg tccagtacat gaaggacacc aacatgctgt tcctgggcgg
                                                                     300
ceteategtg geegtggetg tggagegetg gaacetgeac aagaggateg eeetgegeac
                                                                     360
geteetetgg gtgggggeea ageetgeaeg getgatgetg ggetttatgg gegteaeage
                                                                     420
cctcctgtcc atgtggatca gtaacacggc aaccacggcc atgatggtgc ccatcgtgga
                                                                     480
ggccatattg cagcagatgg aagccacaag cgcagccacc gaggccggcc tggagctggt
                                                                     540
                                                                     569
ggacaagggc aaggccaagg agctgccag
     <210> 1285
     <211> 728
     <212> DNA
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                                                                     120
agttgttccc ctgctagccc agttggcctc tgattttagg agaagccaga agtccagatt
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tttctgtgag ctctccttag ttgtccacat tggaagcaaa cttttaaatg ctgtgtatgc
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                                                                     300
gtggcccaag caaaacacat ctggaggcca gattgaatcc acaggctgaa agcagtcaac
caggectgat gtcatgacce tgtatectet ceaetggeag gaagagatgt caggagaaag
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tgtggtgagc tcageggtgc cageggetgc taccegcace acttecttca agggcacgag
                                                                      420
                                                                      480
ccccagctcc aaatacgtga agctgaatgt gggtggagcc ctctactata ccaccatgca
gacgetgace aagcaggaca ceatgetgaa ggecatgtte agegggegea tggaagtget
                                                                     540
caccgacagt gaaggetgga tecteattga eegetgtggg aageaetttg gtacgataet
                                                                      600
caactacett cgagacgggg cggtgeettt accegagage cgccgggaga tcgaggaget
                                                                      660
                                                                      720
getageagaa gecaagtaet acetagteea aggeetggtg gaagagtgee aggeggeeet
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acaagtac
     <210> 1286
     <211> 574
     <212> DNA
     <213> Homo sapiens
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cagcagegge ggaggaegag gatetetgge agteagegeg geteggaege egeeggeaee
                                                                      120
atgggetget geaceggaeg etgetegete atetgeetet gegegetgea gttggtetea
                                                                      180
gcattagaga ggcagatctt tgacttcctt ggtttccagt gggcgcctat tcttggaaat
                                                                      240
tttctacaca taatagttgt catattgggt ttgtttggga ccattcagta cagacctcga
                                                                      300
tacataatgg tgtatacagt gtggactgcc ctctgggtca cctggaatgt gttcattatc
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tgcttttatt tggaagtagg tggactctca aaggacaccg atctaatgac attcaatatc
                                                                      420
tetgtacatc ggtcatggtg gagagaacat gggcctggtt gtgtcagaag agtgctgcct
                                                                      480
                                                                      540
cectcagece atggeatgat ggacgattae aegtaegtet etgteaeagg etgeategtt
                                                                      574
gacttccagt acctggaggt catccacagt gctg
      <210> 1287
      <211> 614
      <212> DNA
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<213> Homo sapiens

<212> DNA <213> Homo sapiens

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<400> 1282
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                                                                      120
tcagccttgt tcgaggccca gggattttgg gggaggtcac agtgttctgg aggatattcc
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ctccttccgt gggggaattt gctgaaacat caggaaaact gacaatgcga gacgaacagt
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ctgcagtcat tgtagtaata caggctttga acgatgacat tcccgaggaa aaaagcttct
                                                                      300
atgagtttca gctcactgca gtcagtgagg gaggagttct gagtgaatcc agcagcactg
                                                                      360
ccaacatcac ggtggtggcc agcgactctc cctatggccg atttgccttt tcacatgagc
                                                                      420
aacttcgagt gtcagaagca cagagggtta acatcacaat catccgttcc agtggagatt
                                                                      480
ttggccatgt gcgactctgg tacaagacga tgagcgggac agcggaagca ggcttggatt
                                                                      540
ttgttcctgc agcaggggag ctcctctttg aagcagggga gatgaggaaa agtctgcatg
                                                                     600
ttgaaatcct tgatgatgac tatcctgaag gcccagagga attttctcta acaattacaa
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                                                                     720
atcaacctcc tgaaatagga aacatctcca ttgttcgcat cataataatg aaaaatgata
                                                                     780
acgcagaagg catcattgaa tttgacccaa agtatactgc cttcgaagtg gaggaagatg
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ttgggctgat catgatccca gtggtgaggc tacatggaac ttatggctat gtgacagctg
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atticatete teagagetee tetgeeagte ceggaggtgt tgattacatt ttgcatggca
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gtacagtcac ctttcagcat gggcaaaact taagttttat aaatatctcc atcattgatg
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acaatgaaag tgaatttgag gagcccattg aaattctact cactggagct actggaggag
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eggteettgg gegeeaceta gtgageagaa teataatage taagagtgae teteeetttg
                                                                    1140
gagttataag gtttctcaat caaagcaaaa tttctattgc taatcccaat tccacaatga
                                                                    1200
ttttatcact ggtgctggag cggactggag gactcttggg agagattcag gtgaactggg
                                                                    1260
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cagtgagcgg gttgttctat tttggagaag gagaaggagg agtgagaacc ataattctga
                                                                    1380
caatctatcc tcatgaagaa attgaagttg aagagacatt cattattaaa cttcatcttg
                                                                    1440
tgaaaggaga agctaaatta gactccagag ctaaagatgt tacattaacc atacaagagt
                                                                    1500
ttggtgaccc aaatggagtt gttcagtttg ctcctgaaac tttgtctaag aagacttatt
                                                                    1560
cagageetet ggetetggaa gggeeeetge teattacett etttgteaga agagteaagg
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gcacctttgg agagattatg
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     <210> 1283
     <211> 517
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<211> 517

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(517)

<223> n = a,t,c or g
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gaccatetge ccaacctgta tggtttcage gegttgcaeg ctgtgcaect gcatcagtgg
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                                                                      360
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                                                                      420
                                                                      480
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 aatcatgget cactgcagec teaaaateet ggeeteaaga aattetgeag aeteageett
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gecegeagge cegtatgetg etectggege tettetgegt ggeegteage gtggtgtggg
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1440

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                                                                    1560
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                                                                      240
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 ggtggtgaca agaacggcgg tacccgggtg gttaaacttc ccacaatgcc tagatattat
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                                                                      415
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- <210> 1276 <211> 595 <212> DNA
- <213> Homo sapiens

<210> 1273 <211> 1339 <212> DNA <213> Homo sapiens

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60

120

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                                                                      407
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caccteggee tececaagtg etgggattac aggegtgage tageatgeet ggecagggat
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aatttctatg aagtggttgt gactattttc tgtagtcaat acagttggga tatctgatct
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                                                                     1029
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gggggagagt gcggcccagg gggcagctgg agtggtgctc tgggtgagct gggaaaatac
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aagaaccaag gtgagcttag geetggeatg agggtggggg tgggggaggg gtggggeeat
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aggtgagtgc ctcagtgccc tgggtgggtc catacatggc catggtgtcc ctgacgctat
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ctaattcggc atgttaaaaa ataagggtca ctcatctaag aaagataact tqqcaqtcaa
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                                                                      360
agatcattet aagacacaag tacaaaagaa agagaacaaa tetetaaaaa gagatacaaa
                                                                      420
ggcaataata gatactggac ttaaaaaaac tacacagtgc cccaaactag aagactcaga
                                                                      480
aaaagaatat gttcttgatc ccaaaccgcc gccgttgact ttggcacaga agttgggcct
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cattgggeet ecaccacete caetgteate agatgaatgg gagaaggtga aacagegete
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                                                                      660
tectcaggtg tttagcatac gagggtgagc tagagagete etgggetgtt tectagggac
                                                                      720
gaggeccaga getggageet aagattecaa getteetttt tecagtttea teeteetgtg
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tgagceteae acaetteeat tttgttttee attaattaaa gtgtgtgaag agetaaacae
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cctcattaaa tagttttgtt tgtttactaa ctggtattct caagtactaa agtttgtaca
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aaaggaatgt ttctgttcaa caggccccat gcggctgtgc agacaactgg ggggcttccc
                                                                      960
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tacttaagga geccagacaa tcaaagtaac agetatecae caatgteaga tecatacatg
cctagntact atgetecate cattggattt ccatattete ttggggaage agegtggtea
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                                                                       488
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      <212> DNA
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 gaccccatta cgctaaagat gaaaggctgg gggtggctgg ccctgcttct gggggccctg
                                                                       180
                                                                       240
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 cgtcgacgcg tccgtcaatt caacatctat gattactaaa aatggagaag gggtgtttgt
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                                                                       352
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  acagatgatt cagcetgaga ageteetgtt ggteacagtt ggaaagacag ecaetetgea
                                                                       180
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                                                                       240
 aggeogagaa ttaatetaca atcaaaaaga aggeoactte cecagggtaa caacagttte
                                                                       300
  agaceteaca aagagaaaca acatggaett ttecateege ateagtagea teaceceage
                                                                       360
                                                                       420
  agatgtcggc acatactact gtgtgaagtt ccggaaaggg agccccgacc acgtggagtt
  taagtetgga geaggeaceg agetgtetgt gegtggtgag tacagegtgg getteettag
                                                                       480
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                                                                       120
                                                                       180
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  ttttttcttt tattattaaa ctagtgcacg acatcaatgc tatatgattg gtgtttcgtt
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  gacctaaaaa taatgcatgc catcttcttt tcacagctgt gtgccaacca cgatgcaaac
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  atggtgaatg tatcgggcca aacaagtgca agtgtcatcc tggttatgct ggaaaaacct
                                                                       360
  gtaatcaagg taggaaaaca gtctgacata aatacacaat cgaagacacc tctatcactc
                                                                       420
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       <211> 1029
       <212> DNA
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acactactcc accaaccgaa gcccccaaaa gatgagttcc tgtccagtct ggagagctat
                                                                      180
gagategeet tececaceeg egtggaceae aaeggggeae tgetggeett etegeeaeet
                                                                      240
cetececaga ggeagegeeg eggeaegggg geeacageeg agteeegeet ettetacaaa
                                                                      300
gaggeetege ceageaccea etteetgetg aacetgacce geageteeeg tetaetggea
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gggcacgtct ccgtggagta ctggacacgg gagggcctgg cctggcagag ggcggaccgg
                                                                      420
cccactgcc tctacgct
                                                                      438
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     <211> 435
     <212> DNA
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     <221> misc_feature
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                                                                      120
cteaaggete ctecacacac acaccegetg aaccetgage accetgaget getgagatgg
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ggcgggccgg ggctgccgcc gtgatcccgg gcctggccct gctctgggca gtggggctgg
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ggagnnncnn ccccannccc ccacgccttc cgttttgctt acaagagctc caaggccggc
                                                                      300
atgegeteca taettttage etggagegaa eetgetegta eeaagaettt ttgtgggeag
                                                                      360
acgagggccg cotecttoat gtgggagcac aagacettgc tacetggcac actetgteec
                                                                      420
cgttaggctt gtggg
                                                                      435
     <210> 1263
     <211> 488
     <212> DNA
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     <221> misc_feature
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ctcagcgaac ggcggcagog gcggcggctg gaacaatcac tcggccaagg gcgacagcca
                                                                      180
actgetgtga gtgcaegggg agaggeccag geageggegg eggeggegge tetegggttg
                                                                      240
oggtgaagaa tgtcagccac tagcgtggat caaagaccta aagggcaagg aaataaagtt
                                                                      300
tcagtacaaa acggttcgat tcatcaaaaa gatggctgta atgatgatga ttttgagccc
                                                                      360
```

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cgtcgtgggg gagccttgca gaggcgggaa gtctcttcct cttccaacct ggaggagatc
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tttaactgga agcgatcata cacaaggttg atggcagcgg cagctggggc tgcagcggcg
                                                                    1440
                                                                    1500
ccgggctcta gagagccgca ggatcggcca gagtgcggag ctggacaccc gggtcccaga
tactacagae acceggagag gtggeteett egeeetgaag cetteetegg ecceetaege
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actogggccc cttccgcaga ggattcgcag cgtgagcgcc ccgcagcccg ctcaggacca
                                                                    1620
                                                                    1680
gagatgcgag ttcggtatcc tgtggtggct gcagtcttgg ccccatacct ggctttaagc
caagatccaa tggtcaagtc ttctgcttct ggacagggtg cctctgggag ctacaaccac
                                                                    1740
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gtccgtgaag agatgctcat caaggctggc ggtgctatga gcagacgtgt ggttcggcaa
                                                                    1860
agcaagttcc gccatgtgtt tgggcaggca gcaaaggcog accaggccta cgaggacatc
cgtgtgtcca aggtcacatg ggacagctcc ttctgtgccg tcaaccccaa attcctggcc
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     <211> 935
     <212> DNA
     <213> Homo sapiens
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                                                                      120
ccaagaaaag agcagaactt ttttgtctgg gaagggtttt ctgaaggagt tataatggaa
                                                                      180
taggcaggaa ggagaacttt agtttctgta tagcgctttt tatattatag gaatttacga
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acagtagaaa actgtttgag gtacaggcag gggtttagat aaatatgtga agattgggtc
                                                                      300
ttetttaggt aageagaggt geagaaagat taaetetete etgtacaeet etcaagtget
                                                                      360
                                                                      420
gaaaagcatg tatactatat ggaagtteta gaattttagt acaatcaggt tgctccgggt
ctggagggac aggagattct gtgtctatat aatcttcagg actgatgtct ttgctctcca
                                                                      480
aagttatgta tgtgccatca tatagatcca ggtcccctaa gggcaccttg gctttgatgc
                                                                      540
agtotgggto ttotttatta tgtototgtt coagtootgt gtototgtoo toattotott
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ctatgtgaat tttttgagca actaattgtt tctctaattc tttgaggtag ttaactgttg
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cttcttgtct cattaatatg actaggtcat gaggatgctt caagttcatt ggtgaatcca
cetgetgetg gatttteceg teeteegtga egacceagtg egtggtggeg aaggeeeete
                                                                      780
                                                                      840
gtgccgccac actcagcaag gcggaaaggc tgaggagcca gcctgggccg gagcaaggcg
                                                                      900
gcagctcgta ccggccacga acccctactg ccgccgccat cttgcccccc cggccgggcc
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gctcacaccg gaagcggaag ctagtctcca cgaaa
     <210> 1260
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                                                                      120
 cctgccacct caagctggaa gattacgaca aagcagaaac agaggcatcc aaaggtaggg
                                                                      180
 gaatggtggg ccctggtgtg gagctgtagg gcttctgtgg tgggcaagga ctctgggacc
                                                                      240
 gctgcaccgt cacattctcc tcctttggcc ccagagacac atctgccttc tttctttccc
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 actgcctcgg gcctttcttt ttctgcagct accctcacct tttctgaggc tgaagcaccg
                                                                      360
 agececacat tegtecece cacettette tggeetttee tegagatett teeetaetge
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 tettgeetgg agacagtgge etcatgggtg etgacagege teetgtttgt geteagecat
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 tgaaaaggat ggtggggatg tcaaagcact ctaccggcgg agccaagccc tagagaagct
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 gggccgcctg gaccaggctg tccttgacct gcagagatgt gtgagcttgg agcccaagaa
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 caaagttttc caggaggcct tgcggaacat cgggggccag attcaggaga aggtgcgata
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 catgtcctcg acggatgcca aagtggaaca gatgtttcag atactgttgg acccagaaga
                                                                      720
 gaagggcact gagaaaaagc aaaaggcttc tcagaacctg gtggtgctgg ccagggagga
                                                                      780
 tgctggagcg gagaagatct tccggagtaa tggggttcag ctcttgcaac gtttactgga
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 gcatcagtca cggacagtgg caaccctgag catactggga actcggcgag tagtctccat
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```

```
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                                                                      180
cettttgggg gacatecagg aacetgggca egetgaagge atcettggca ageegtgtee
                                                                      240
caaaatcaaa gtggaatgcg aagtggaaga aatagaccag tgtaccaaac ccagagattg
                                                                      300
cccagaaaac atgaagtgtt gcccgttcag ccgtggaaag aaatgtttag acttcagaaa
                                                                      360
ggtcagcctt actttatacc ataaggagga gcttgaataa cctccag
                                                                      407
     <210> 1257
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     <212> DNA
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                                                                      120
atgtagttaa ttgtatctgg acctgcaccc ccagcttctt tcttggcttc atttaatctc
                                                                      180
tetettgget teettgeett cagggatete etteaaggea gggeeattte tggttteete
                                                                      240
cagcteccag ggeteettee tgeaacagaa aatgtteetg cetteacaga gettacattt
                                                                      300
tagtaagtgg attgggaggt tgcggccaag tgtatagtga ggtgacgctt anggaaagct
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taagctgctc tgagaacacc tgaaaagtac acccaaccgg cttggtgtgg tggctcacac
                                                                      420
ctgtaatccc agcactttgg gaggccgagg cgggtggat
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     <211> 1974
     <212> DNA
     <213> Homo sapiens .
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                                                                      120
gcccaagacc gtagacgacg gggaggaggc ggacggcgga ggcccggcgg accagttcag
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cgacgggcgc gagccactgc cgggagggtg cagccttgtt tgcaagccgt cggccctggc
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tgagetggee egggagtace tgeagttgge ggaegatggg etagtggee tggaetgggt
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ggtaggacct tgtgttcggg gccgccggat caccagcgcc gggggccttc ctgcggtgct
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tetggtgate cecaatgegt ggggtegeet caceegeaac gtgeteggee tttgettget
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teggegetge teetgteeta eetgggegag tgeggeteet eeagetaegt gacaggegee
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gestgeatet egesegtget gegstgesga gagtggtteg aggseggset gesetggsse
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getetettet gecacaceaa aagetteeee ateagetggg atgeetaetg ggaeegeaae
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gaccegetee gggatgtega tgaggeagee gtgeetgtge tgtgtatetg cagtgetgae
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gaccccgtgt gtggaccccc agaccacact ctgacaactg aactcttcca cagcaaccc
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tacttettee teetgeteag tegecaegga ggccaetgtg getteetgeg ceaggageee
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ttgccagcct ggagccatga ggtcatcttg gagtccttcc gggccttgac tgagttcttc
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```

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    <213> Homo sapiens
    <220>
    <221> misc_feature
    <222> (1) ... (388)
    <223> n = a,t,c or g
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ttgcaagctc ggccctcccc tggaatctaa agcctcctca gccttctgag tcagcctgaa
aggaacagge egaactgetg tatgggetet actgecagtg tgaceteace etetecagte
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acceptecte agttecaget atgagttect geaactteac acatgecace tttgtgetta
                                                                     300
ttggtatccc aggattagag aaagcccatt tctgggttgg cttccccctc ctttccatgt
                                                                     360
                                                                     388
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     <210> 1254
     <211> 695
     <212> DNA
     <213> Homo sapiens
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gagtecacag aactttcage cacgacettt teaactcaaa geeeettgca aaaattattt
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gctagaaaaa tgaaaatctt agggactatc cagatcctgt ttggaattat gaccttttct
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tttggagtta tcttcctttt cactttgtta aaaccatatc caaggtttcc ctttatattt
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ctttcaggat atccattctg gggctctgtt ttgttcatta attctggagc cttcctaatt
                                                                     360
gcagtgaaaa gaaaaaccac agaaactctg ataatattga gccgaataat gaattttctt
                                                                     420
agtgccctgg gagcaatagc tggaatcatt ctcctcacat ttgagtttca tcctagatca
                                                                     480
aaactacatt tgtgattatt ctcaccaaaa tagtcagtgt aaggctgtta ctgtcctgat
                                                                     540
cttgggaatt tagaatacat tgatgacttt cagcatatat tgaattattc atattctctg
                                                                     600
cetttactca attttggggt gccactcaga ggattgtgat tgtgaacaat gttgttgact
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                                                                     695
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      <210> 1255
      <211> 386
     <212> DNA
    <213> Homo sapiens
      <400> 1255
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 aaaacttgta gcgaccaggc agagagcaac gcgattgctt tcaagcgccc ccactcgggc
                                                                      120
 teggegggeg ccagacagac atgatgeace atectetgae gggggeeace tgegtgggge
                                                                      180
 tecceaacgt gggcatgtge ecceagettt egggggeett gaettttatg tacttacage
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 agggtaatca ggaagcaacc gttgcccctg acacaatggc tcaaccttac gcttcggccc
                                                                      300
 agtttgetee cccgcagaac ggtatecccg gggaatacac ggecceteat ecccaceceg
                                                                      360
                                                                      386
 cgccagagta cacaggccag accacg
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      <211> 407
      <212> DNA
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                                                                      360
cacgggccgt gcggcacgca accgctggct ggccgtgttc gccaacctgc ccgagggtgt
                                                                      420
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240

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180

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cagtatgctg gctatgacta ttcgcagcaa ggcagatttg tccctccaga catgatgcag
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ecacaacage catacacegg geagatttac cagecaacte aggeatatac tecagettea
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                                                                      660
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caaaagggat gtttgtttaa tgtggatgag caacaggctc gcgtgggaat tcacatgcag
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180

240

300

togggecete etgeetgeag gateatgeec accacegtgg acgatgteet ggageatgga

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540

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gccaactgtt aaacaaactg agacaaaatg ggaatacaac aacgtgggca ctgacctgtc
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ccccgagccc aaaagcttca attacccatt gctctcgtcc ccaggtgatc agtttgaaat
                                                                   1020
                                                                   1080
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tcatgttatc cggaccttga agatggactg ctctggggcc catgtgcaag tgacctgtgc
                                                                   1140
caageteate tecaggacag gecacetgat gaagettete agtgggeage aggaagtaaa
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ggcatccaag gcagaatggg atacggacca atggaagatt gagaactaca ttaatgagag
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cacagaagee cagagtgaac agaaagagaa gtegettgag etcacaaaag aagttecagg
                                                                   1320
atatggctat actgacaaac tcatcttggc attaattgtg actgaaatac taacgatttt
                                                                   1380
gattatactt ttctgcctca ttgtgatgtg ttgtcaccga aggtcattac aagaagatga
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agaaggattc 'tcaaggggca ttttcaggtt tctgccacgg aggagatgct cttcgcgaag
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ggagagtcag gatggacttt tttcattcag acggccgctc tggcttaaag atatgtacaa
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acctctcagt gccacaagaa taaataatca tgcatggaag ctgcacaaga agtcatctaa
                                                                   1620
tgaggacaag atcctcaaca gggaccctgg ggacagcgaa gccccaacgg aggaggagga
                                                                   1680
gagtgaagcc ctgccatagg aggagaacac agcccacctc aggcctcctg caaaaataca
                                                                   1740
1800
aatccaagtt aacgaacgcg ggctggcaga ggaatagctt ttttataggg cccccaaaat
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caattccctg ggcggcggtt taacaacggg gggacgggaa aaacccgggg gtaacccact
                                                                   1920
taaatcgccc tgtgggaacc ccnnngnnnn nnnnnnnnn gntttttntn gggnttgggg
                                                                   1980
tttgggtgtt ttgttgtttg gggtgggttt ttntgtgggt tgtgttgtgt gtntggggtt
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ggggtgttgt ggtgtttntt tt-
                                                                   2062
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     <211> 480
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                                                                    120
taatttgttt tgagattttg tcataaagta atgttgaatt ttctaaaatt ctttttctgc
                                                                    180
attcacttaa aagttataat tggttotgag atcottcato tttotcagaa totaggagga
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tgcatctgta cctataggag gacacaaagg catcatatgt tacattctcg tgacatataa
                                                                    300
tgtctactgc ttataatgtc tactgtgagt ttctgactcc ccaaatgaaa ttgaggccca
                                                                    360
gaaactttca actgetttgt tegttgaata atgecaagtg tetggaaatg tgaetattea
                                                                    420
gattaaatgc ttaatgtgtg tgtgttgact aaataaatct caaccagaac cttctcagat
                                                                    480
     <210> 1201
     <211> 590
     <212> DNA
     <213> Homo sapiens
     <400> 1201
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                                                                    120
agtectggea cacgageage ageacagaeg ggtagegeag etggttgagg acegtetgge
                                                                    180
tgegetgeac egtgggeage gggaagtett ceageteete etgtgaeteg atgteeagea
                                                                    240
geogragoga etggtogtto acetgoagoa goatetectg ggtocagate ttetecttgg
                                                                    300
ageteagetg caccagette eggatggegt egtecacaga egtgatgget tegetettgt
                                                                    360
```

420

480

ccatgatgaa tgtggccagg tgctggacgt ggtactgcga ggtctcgtgc atgatgacgt

tggagttgga atacttette etetgetetg aacogggaga caccagteae tecceogaeg

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420

```
tatttgccgc ggacaaactc tcggaggaca ccacacctgt aatgagaacc gcacgcaggg
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     <211> 449
     <212> DNA
     <213> Homo sapiens
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     <223> n = a,t,c or g
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aangettttt etttegttag ttactgeata etegeagaaa etattttgae ggegtggtga
                                                                     120
aaggeteaat ataggggggg agtactgege acagagette atgtttttaa attttttea
                                                                     180
tatacttgtt gatgagttat ttagtattca ttgggggaga aaaagccgta ccggaccctt
                                                                     240
tetetttaac teatgtatgt etatatggtg ggaaaattge etggetaaat tgeetggett
                                                                     300
tragggttgt totttectte taaccaggea aatetttgtt ttttatgeta taagetgaca
                                                                     360
gcagattcca ggtacagagg gcacgctatg aggcacctaa ctggaaatac aagtatggct
                                                                     420
                                                                     449
attagattcc tgtggacatg ctgtgtaan
     <210> 1198
     <211> 381
     <212> DNA
     <213> Homo sapiens
     <400> 1198
agaatageta etetttetet tettttgtte eetetette agtetatatg tgtetetaaa
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ggggaagtga gtctcttata ggtggcatat atttggttct tgttttacta tccattcagc
                                                                     120
cactetgtgt ettttgttte actgatttgg tecactgata tttaaagtaa etattgatag
                                                                     180
gcattttgta gttttcttgt tcttttattt ctctcttgct gtgcatgatt tgattacttt
                                                                     240
gattattttc tgtagtggta tactttgatt ctttgctgtg cctttgtatt aattcttttt
                                                                     300
taaacatgtg gtaaaattct catttgtgta tctgttacat gttttgtctt tgtgtttatc
                                                                     360
                                                                     381
atgaggetta cataaaacat t
      <210> 1199
      <211> 2062
      <212> DNA
      <213> Homo sapiens
      <220>
      <221> misc_feature
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      <223> n = a,t,c or g
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 actgtaggca aaaaccggca gagactgaat agagtcctca tgggcccaag gagcatccag
                                                                      120
                                                                     180
 aaaaggcact tcaaagaggt aggaaggcag agcatcagga gggaacaggg tgcccaggca
 totgtggaga acactgooga agtaaaaaag gotoggaagt ccagooccaa gggagotgaa
                                                                     240
 acagoctcac acacagoagg ggcotgagaa gttagoggga aacgoogtot acaccaagoo
                                                                     300
 trogttcacc caagagcata aggcagcagt ctctgtgctg aaacccttct ccaagggcgc
                                                                     360
                                                                      420
 geottetace tecagecetg caaaageest accacaggtg agagacagat ggaaagaett
```

## <213> Homo sapiens

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                                                                      120
cagtececca gggcatgcag ttcagegctg ctgaaatcat ccagaagcag agccagttca
                                                                      180
ctgaacgtgc agtgtatact gcagtcaaac cctcaagggc atcaaagaat ataaaaacaa
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aaagcctcat ccaaaggaca gcaatttcga agatgaaagg aacatccttt catgttaaaa
                                                                      300
acceteaaca aactaagaat tgaaggaaca tageteaaaa taagaagage catetatgae
                                                                      360
aaccccacag ccaacatcat agtggagggg caaaagctag aagcattccc cttgagaact
                                                                      420
ggaacgagac aag
                                                                      433
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                                                                      120
tggagagtet ctgtgcaatt tcagtttcat ccacagtttc ttgtgctatt ctgtcataca
                                                                      180
aacactctct gacgatgctt agtitgtgag gcgagagggg tggtttaggg actgcatctt
                                                                      240
tettttttt tgtggegaeg eetgtgaege ttetgtttt cagaacatet gtteeccaaa
                                                                      300
tcataactgc caagttette gtgtacttgg aateteettg ggttacttgt agetggtgce
                                                                      360
attteteete ateaacecaa atecegette ecagatggac ettgecattg tetaggatat
                                                                      420
acttgtccat gacaggcgca ggagcggggt aataggacga cgtatttgct tcctcactga
                                                                      480
aagtgctccg taactccggc tcgggctcga gacattctga ctttactttt tccagatcaa
                                                                      540
tggcgggacc gctgccaagc ctcaggagca gcacgtcctg gagcctccgg ttaaggtcac
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ggageteett cattteagae acaagtgeee egtacteett gagettettg geetgttgta
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ccagetgeet ecgagteege tecageteet getggaggtg gegeatetet teetgttget
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gctggtagtt gcgcagcagc tcctcataca gagcccgggg caccacagca tcttctagac
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tgtccatgtc ctctgtgcct ggcgaggcct ccacgaagac ctcttccgga cacgtgctat
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ggcccagget caggccgttc tgcttctcta gccgagccac cactgcctcg atgctcttgt
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gegecaette geteggette egecceteag gtetettgat gtgtetaage tgtaaatett
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cttccccata atctttaacc tctccatctt cttctacatg attaagagaa agcttgggga
                                                                     1020
tttttatttt cttctgcatc acactgtttt caaggtcaga tttgtcttct gccagcgcca
                                                                     1080
ggatetggge ettgtggage aacagegege eecagtegeg gggggegege ggggggetet
                                                                     1140
egggeeegge geceaattee teegggeeee ggtacaegge gtacaeette tggttgtcaa
                                                                     1200
aatccagccg cgagcggggg ctgaagtcg
                                                                     1229
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     <211> 468
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cgcgggggcg gcgacggagg cgagagccgt tttttccgta ngaagccaac cttccctgct
                                                                      120
teteegggge cetegeece tecteeceae aaaateaggg atggaggege eteeceggea
                                                                      180
ccetcttage agecetecce aggaaaagag teececetga geteetaaeg eteeceaaca
                                                                      240
```

300

360

getacecetg cececacge catggggeec ggtgcccett ttgcccgggg ggggcggcca

ctgccgcttc tgggtgcgat ggcggaacgg gtggctccgg ggtgggactt gcacaccccc

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tttcaaaaca tgctaattcc aaagccactt ttgaagtcta tagtggaaaa tatagatggg
                                                                    1140
gtgaaagata taatgtattg atttttaaag ctgtttataa gccgtcccac gtataaaatg
                                                                    1200
anacatttta cettetet ttetaatgag atggeegett gttaaateat gaaaacatee
                                                                    1260
agaattcaag tgccgcttaa actttgaagc catagataaa tttgttagaa aagtaagcca
                                                                    1320
ggattaaaag tttttaaaaa tatggtagaa tccttcttta ctttttaagt cttttattta
                                                                    1380
                                                                    1389
aaaaaaaa
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     <211> 411
     <212> DNA
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gcagcatcca acctgettta tteeteetge etgeagegee acagegageg agegagegag
                                                                     180
gagggggaga gagggagtet gtetgcaaag tgetgeteee tggtgeteag aggeggetge
                                                                     240
tocagotoca actotoatto atttogoogg ataacatgag agateatggo egecttegtg
                                                                     300
cttetcaget atgaacagag accgetgaag egececegge tegggeegee egacgtetae
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ccaccggacc ccaagcagaa ggaggaagaa cttactgctg tgaatgtaaa g
                                                                     411
     <210> 1192
     <211> 406
     <212> DNA
     <213> Homo sapiens
     <400> 1192
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caagggggga tgattgtaga ggagtttaga gcctgcatcg tggttccaag ttagcatcac
                                                                     120
cgttcctggt ccttccatct ttctgcttag tcatatttaa cttgtgttta tttcttcatg
                                                                     180
atcagaatat gtgtctttct caactatcat atgtatgttc atcatgacat atgtgctcat
                                                                     240
gaacteggee aggaactete gegecatett ceteteatet teetegeate atattteetg
                                                                     300
gatetttget atcaeggace aggagaceat tttggageea egggtggace tgataeagtg
                                                                     360
                                                                      406
geocgagete atggacagaa aggagaetea agtetgeeet egtgee
     <210> 1193
      <211> 432
      <212> DNA
      <213> Homo sapiens
      <400> 1193
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 teagetttag ttgacattga caaatgtttt gecaaagaat tgeaccaatt tacacteeca
                                                                      120
 ccacccatgt ttgagagttt ccattgetcc agatetttgc caacgttttc attgtgattt
                                                                      180
 agetatetaa geaaagtgtt ttagatgeet attagaeett caagetgaga tateaagaet
                                                                      240
 gttggatatg caagtctggg gtatgaggaa gaggtcttaa aaaaaagaaa tcagaaagat
                                                                      300
                                                                      360
 gaagatccat gtgtgaggta ggcagcatgt gaggtagtaa gataatcagc agagtgtggt
                                                                      420
 accccagaag ctgaatgaaa aaaagtgatt caggtaaaac acttctgaga ggtttaataa
                                                                      432
 gatgaagaga ga
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      <211> 433
      <212> DNA
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<211> 397
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      <213> Homo sapiens
      <400> 1188
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                                                                       120
 tgaactatgg ataaaaagaa cagacatggg aacagcctgg acatggcatc agagattcat
                                                                       180
 atgacaggcc caatgtgcct tattgagaac actactgggc gactgatggc gaatccagaa
                                                                       240
 getetgaaga teetttetge cattacacag cetatggtgg aggaggeaat tgegggeete
                                                                       300
 taccgcgcat gctgattcta cctgacgaac aatctggctg gaatgaaaaa gggcttgtgt
                                                                       360
 ctgggctcca cggagcaggc tcacactata ggaattg
                                                                       397
      <210> 1189
      <211> 769
      <212> DNA
      <213> Homo sapiens
      <400> 1189
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                                                                        60
 ccagaccagt tcagacatag ctagaattct gcttctctaa aaataaaaga ttctgcctgt
                                                                      120
caagaagata ccagtgaaaa ttctcacccc atgccaacag ggctggattg tgggagagac
                                                                      180
actaggtagt gtacgtcaga gcaaataggg aacagttgaa gtaaggagac tggtgttggg
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ggtcagccaa gactttgtat ctccatctag tcaacagatg tttattaaga ccattccttg
                                                                      300
 tactagaage tgggaatget taaaaagata tageeettgt tgteaetgte ttateetgtt
                                                                      360
gtctgtgtcg tcctgtgttg tcatagcccc attatctgca taggagacag tctttagttc
                                                                      420
taaaatggga tattagaatg gtttaaatct gacagttgca ttccctgcaa gctgcaattt
                                                                      480
taattagaat cctggtttag ttgaaggaat tcaagatttg attgttaaat caaatgaatc
                                                                      540
taatgaaago actttotgaa otaatacaca gtaatatggt tgaggocacg tgcaatocca
                                                                      600
gcactttggg aggccgaggc gggcagatca cctgaggtca ggagatcgag accatcctgg
                                                                      660
ctaacacgat gaaaccccat ctctactaaa aatacaaaaa attagctggg catggtggcg
                                                                      720
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     <211> 1389
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ctacgecgae eceggegtet cettetatgt getgtgteeg gacaacgget geggegacaa
                                                                      180
ttttcacgtg tggagtgaga gcgaggactg cctgcctttc ttgcagctag cacaggatta
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cateteetee tgeggeaaga agaegeteea egaagteetg gaaaaagtet teaagtettt
                                                                      300
cagacettta etggggette eggatgeaga tgaegatgeg tttgaagagt acagtgetga
                                                                      360
cgtggaagaa gaggagccag aggggacca cccccagatg ggggtcagcc agcagtaaat
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ctgggggctc ccctgagaag gagagtgagc cccacagtaa cctaggtggg gtcactgccc
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                                                                      540
aattaaaatg aaataccttt ttaacgacca caaaatatct gtgatgagct ttgctcagaa
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gtgacctgaa tttcactccc gctttcagtg gggtttctat ggagttgtct tggtagcctt
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tgccattttg aatttagagt ccattttgtg gctgactatt ctcttaagtt tatgttggag
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aattaacatt cgctgactcg aatgtagaga actctgaatg tattaaggat aggttttgaa
                                                                      780
gteeteacag gtgacettae tgagggaaag catggcagag aagaaatgca gtetgcaett
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tttatgtact ttttaagtgt ccgtaagtga aaggttttgc ttataaagca tgaattttaa
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tatctagtca ttaaactgca caagtgcaaa tacaagggca ggaaaggata atcacttage
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tttggactaa gagggtaaga gaggcccaga agcctttaag tgttttgcca ttactgagtt

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960

1020

1080

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                                                                     120
agtgacgagg gacctagget getgetgete etgeceegaa aagaaaaage tecaatcata
                                                                     180
acgaccaggc catggctggg attgcctctg ttgaaggtgc cccatgtggc agggccaggc
                                                                     240
ttotaggatg gaccotgota aggocaagga tagagaagco agcacotgot goagcotggo
                                                                     300
ctggtggtgg gggtgggagt gctgggtcag ggctctcaaa ctaagctcag gtcctgctgg . 360
tcccctggct tgctgggtgg caaagaagaa gtctttgagc ctctctgggc ctgtttaccc
                                                                     420
ctcagaaaaa ggagctggat tatatgtttt ttgagacagg gtctcactct gtcacccagg
                                                                     480
ctggagtgca gtggtgcaat tttggctcac tgcagcttca aactcctgct tcagcctcct
                                                                     540
                                                                     566
gagtagctgg gactacagat gtgcgc
     <210> 1186
     <211> 452
     <212> DNA
     <213> Homo sapiens
     <220>
     <221> misc_feature
     <222> (1) ... (452)
     <223> n = .a, t, c or g
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ggtgggtaga atagcagctt ctttctggaa attaccatga aagaactttc tgggtgacgg
                                                                      180
                                                                      240
aaatatoota tatottoato tgggtagtgg ttatagatao atttataggt aaaatactot
tcaggctgta catttttgtt tttattgtgt atgacatata cctcagttac acacaaaaac
                                                                      300
ccattatgta cctaccagaa tggttaataa aatttaacag attgacaatt ctaagccttg
                                                                      360
gcaaagaggt ggataaacag gaatteteac acactgttgg taggaateta aactagtgca
                                                                      420
                                                                      452
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     <210> 1187
     <211> 473
     <212> DNA
     <213> Homo sapiens
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tetgggtece etcecettee cagggaetea ggaggaaget ttggeceete tteccagaga
                                                                      120
 gaaagagccc acagagccgg aggcactgtc ccagggctcc tggggagctt ctgggtgggg
                                                                      180
                                                                      240
 agatgetggg ttgggtgteg ateaetggte aetgtegeee attetetget tteggggage
aggggaatgt atacagtttg aaagacaggg ctcagctccc ctgctggact gaggaagtcg
                                                                      300
aggcccaggg agggagaact ggggtetgte tectecatet gtcaccetee ttggtaaaat
                                                                      360
                                                                      420
 ttgtgagggt cctggagcca cttctcaccc acgccacacc tacctcggct gggccttggc
 cactgcaaca gggtctccat tggcatgtga gcctgggccc tgccagcaag ggc
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<210> 1188

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                                                                       240
 acagetgeae cagetggeae acetgggete atagaaceat ggagetggea gtgeeettag
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 cggtcatccg tgcaaccccc tcattttata caggagaaaa agctgagg
                                                                       348
      <210> 1182
      <211> 403
      <212> DNA
      <213> Homo sapiens
      <400> 1182
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PCT/US01/03800 WO 01/57188

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814

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780

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 gggatgccac taccatattc cattgagctg ccaggcattg attatttagt tctttcaaat
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ctattgagaa aacagaaccc ctcacaaaat ggacaaaagc atttgtaagt catgtttctt
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                                                                     240
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cactgotgot gtcagtggcc tcctggtggg ttatgaactt gggatcatct ctggggctct
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<213> Homo sapiens

## <400> 1134

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gegegetetg ctaegeggag etgggeacea ecateteeaa ategggegge gaetaegeet
                                                                      420
acatgotgga ogtotaoggo togotgocog cottootcaa gototggato gagotgotoa
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cagggagaag aggatgatga gcatgccagg cccctggccg agtccctgct cctggccatt ·
                                                                     480
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caccaaccca tiggitcagt totitigtit coteggagaa cagacatgee eigeecetet
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gagttetaaa gtteetgttg etteagacaa tggatgagea ateacaagga atgeaaggge
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cacctgttcc tcagttccaa ccacagaagg ccttacgacc ggatatgggc tataatacat
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1140

<212> DNA

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<213> Homo sapiens

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<213> Homo sapiens

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actgoctgac taacttctat ggcatggatc ttacctgtga caaaatatgt tccatggttg
                                                                     720
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aaaaatgttc aacaatgatt gaagctcatg ttgatgtcaa gactaccgat ggttacttct
ttcatctgtt ttgtgttggt tttactaaaa aacacaacaa tcagatactg aagacctctt
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atgettagea ccaacagtet gecaaateea gaagaagatg atggaaatea tgacetgaga
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                                                                    960
ggtgcagaca aatgacttga aagaagtggt caataaattg attccagaca acattggaaa
agatacagaa aaggttttcc aatttatcct ctccatgatg tcttcattag aaaagtaaaa 1020
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tggggtgcgg tgcaggggtc cagagccatg tcggacctgt tactgttact actggacctg
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actotyttac tyctgctgat gctgctgggc tttgccgggt actcagggca gttggctggg
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gtggcagtga gtgccggctc accecccatc cctacaagtt ccatgtggag ccctatggtg
                                                                     300
                                                                     360
agactgggtg getteteace agagetgeag cateteece aaactetget ceategetgt
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                                                                      120
                                                                     180
taagggagat gcagactcag actgctgtga gctagcacta cacacctatt aacacagata
caatagaaaa tagtgaaaat aacaaatgct ggtgaggata ctgagaagct gggtctcatt
                                                                     240
                                                                     300
catcactggt ggggaggtaa aagggtacaa ccgttctgga aaagagtttg gcagaaaaga
                                                                      357
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     <221> misc_feature
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```

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gggaatgtgg ttgatcaact tgatatgttg gccaaatgtg ccccatgtaa taaaatgaaa
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 gagaccaage taacaaacct ctgacggtgc gaagagtatt taactgtttg aagaatttaa
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 cagtaagata cagaagaagt accttcgagc tgagacctgc aggtgtataa atatctaaaa
                                                                       360
 tacatattga ataggcetga teatetgaat eteetteaga eecaggaagg atggetatga
                                                                       420
 cttggattgt cttctctctt tggcccttga ctgtgttcat ggggcatata ggtgggcaca
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 gtttgttttc ttgtgaacct attaccttga ggatgtgcca agatttgcct tataatacta
                                                                       540
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 gtgggtaatt cttaccatca catggttttt agcagctgtg ccaaagtggg gtagtgaagc
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 gattecatta taaaaggaga accaagataa attagtgaag titatgatee ggateggegt
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tggcaattta aacgtggctc aagaggaatg ctccaggaaa gggatagtgg atgaattctt
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cccgctgttg tcaaactaat gtatatggac tcaaccacag ggatatcccc agagctccta
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tggaacacta gcaaattttg tgtttttgtt cagtccgaca tgggctggcc ctcatcttgc
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agetetgtaa ttttteaatt taeacceaac aaatgaactt gageattgee ateccageta
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ggctgtggtg ggaggattgc ttgaagccag gagttccagg ccagccttgg caacatggca
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agcagettgg ccaacatect gaaatecegt etetaceaaa aatataaaat ttageetttt
                                                                     360
ggtactccaa gcagcaccat ggcggttgtt aagaacaagt gccttatgaa aggtggcaaa
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aagggagtta agaagaaagt agttggtcca ttctctaaga aagatcagta tgatgtgaaa

gcacctgcta tgttcaatat aagaaatact ggaaagactt ggtcgccagg acccaaggaa

420

480

540

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cttgctcctc tgcaacggac tgaagacttt gggcaaactt taactagtta actccatgat
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                                                                     120
acacaaatcc tatatataat gtaaccttgc ttggctttgt agcccagtcg gcatgctta
                                                                     180
                                                                     240
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ctgtggagag cagggtactg ccagcagcgg accctcagaa gaaagtgcat gacatcagac
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     <213> Homo sapiens
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                                                                      420
attccaaaat ctggcgccct gtggagatct ttagactggt cagcaaatat caaaacgaga
                                                                      480
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                                                                      720
accetgacaa getgegeetg etetacaege tggetgteaa etegeaecee ateeteetae
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agatetteee tggggetgag ggatggeege tgeecaagta cetgggetee tgtggeagat
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tectegteag caccageace agacegetge aggaatteta tgatgeacee ceagateagg
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cagoogacet tgoctaccag etectgggtg teetggagte tttgaggage aagatattta
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                                                                      120
aacttgatct ggaagctgtg cgtaaccgaa aggaggcttg taattcttga taactatgac
                                                                      180
                                                                      240
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gacaggacaa atattttaca ctgggtttac caacagggag tacaccttta tgatgctatc
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ccaaactaat tgaatataat aaaaatggac acctttcttt taaatatgtg aagacctttt
                                                                      360
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ctatggatga atatgt
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                                                                     350
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gcctgcttac cactcattac ataacctgag cattcaaatg atggcaattt ctttaccttg
                                                                     420
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                                                                     540
taagtgtttt tggagcetet gggccaatta aatetgatgg ttetteagee tttgttegat
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ccttccaggg attttccaga aactcttctt gggattcttt agagcttgaa tcactggact
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                                                                     780
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                                                                     840
ttttctttct cettttcttg gacetttctt ttgaacggct agacttcttc ttttttctt
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cttctgaagt agaagctgaa gtagtgcttt tctttggctc ttcatcctcc actggtgtat
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gttcatcaga atctggttca ggattctttg gagaaagtcc ccatacttca ggagctccca
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ggcccgggg ggaggggaa gatttgctgg gcttcggact cttcgacgaa ctgcgacgtc
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ctactggggg gccccagcag ccgtgggaca agggggcgct ctcgcgagcc taggaagatg
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tetgttgcet tggtteeegg gaeetgeege tgeggaacag eccaaatetg aggaaacett
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     <213> Homo sapiens
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    <221> misc feature
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                                                                     180
gcgaatgtaa tacggaggcc tctgaggaag gagtacggag gccgagaagg agccggcatt
tgatgagcga accgggaaag ggagacgatt gcctcgagct ggagagttcc atggctgaga
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caccaggtgc caggaagcat cccttttccg gaaagtcctt ttacttggat ctgcctgctg
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gcaagaatct ccagtttttg acgggggcca ttcagcaact gggtggggta attgagggtt
                                                                     420
ttctgagcaa agaagtaagt tacatcgtgt ccagccgcag agaagtaaag gcagagagca
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agccagaggg aacatgtcca gcagcagagt caagaacacg gaaagtggcc agacttgaaa
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ggcccccgtn cctcaaaaat cgaagatgaa aagcaggaag tttcgtcctt tccnatcatc
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<210> 1077

<211> 363

<212> DNA

<213> Homo sapiens

<400> 1077

 $\langle 223 \rangle$  n = a,t,c or g

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ggatettagg gaagcagcat eteettaaaa cagaaaaate taagetgttg tetgatataa
                                                                     180
                                                                     240
gtgctcgtct atggtttaca tacagaagga aattttcacc aattggtgga acgggccctt
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                                                                     300
ttatctgtag acacttggga agggactgga gctgggagaa acaaaaagaa caacccaaag
                                                                     360
aataccaacg catcctacag tgcttcttag atagaaaaga ttgttgctac tctatccatc
                                                                     420
                                                                     480
aaatggcaca aatgggtgta ggagaaggga aatcaattgg agaatgggtt ttgggaccaa
atacagttgg cacagggtgt ttaaaaaaac ctggccttta tttgacgaat gggaattccc
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     <211> 412
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attatgacaa gtctgcataa ctgcttagat caaggagtca gtgatcatct caggagggta
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aagcagtagt cotgtgtgtc ataccacatt ccagcotgcg aacctgcgaa ctagtcgata
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tttgccaaca tagtcgataa agtcattggg tcctgatgag ccccaggagg gg
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 aattgtgaag tttcagaacg tattagaagg tccggaccat ggaaagagat ttcttttggg
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 gctgcagete atgggcgctt actggccctt aaaactttaa ttgcacaagg tgtcaatgtg
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 aacetttgga cattaacegg gtgtettete tecaegagge atgeetttga ggteeegtgg
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 cetgtgccaa gcettattgg aaaatggtge cacgtcatgg agggacagtt acgggccccc
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                                                                      435
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<220>

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ccaagggggc tacccacagg gcccctaccc acaagagggc tacccacagg gcccctaccc
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ccaagggggc tacccccagg ggccatatcc ccagagcccc ttcccccca acccctatgg
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ggagggteec ccatcctact atgacaacca ggactteect gccaccaact gggatgacaa
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gaatgtctgg acctactatg tctcctatgc tgtcttcttc atctctcta tcgtcctcag
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1730

WO 01/57188

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PCT/US01/03800 WO 01/57188

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<212> DNA

<213> Homo sapiens

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 ccagtagete cegeetgtaa teccageact ttgggaggee aaggtgggtg gattgettga
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840

900

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1860

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<213> Homo sapiens
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<210> 963 <211> 2419 <212> DNA <213> Homo sapiens

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1140

1200

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<213> Homo sapiens

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900

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<213> Homo sapiens

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240

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<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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960

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787

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<213> Homo sapiens

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	gtaatacaaa					420
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	cccaagaccc					660
	attgcagcgg					720
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<212> DNA <213> Homo sapiens

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<213> Homo sapiens

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PCT/US01/03800 WO 01/57188

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<400> 1659 Gln Asp Phe Leu Thr Leu Thr Glu Pro Thr Gly Leu Leu Tyr 10 Val Gly Ala Arg Glu Ala Leu Phe Ala Phe Ser Met Glu Ala Leu Glu 25 Leu Gln Gly Ala Val Arg Gly Gly Ala Val Gly Gly Ser Arg Ala Cys 35 40 Gln Arg Ala Arg Pro Arg Gly Ala Val Leu Gly 55

<210> 1660 <211> 139 <212> PRT <213> Homo sapiens

<400> 1660 Gln Asp Met Met Glu Arg Ala Ile Ile Asp Thr Phe Val Gly His Asp 10 Val Val Glu Pro Gly Ser Tyr Val Gln Met Phe Pro Tyr Pro Cys Tyr 20 25 Thr Arg Asp Asp Phe Leu Phe Val Ile Glu His Met Met Pro Leu Cys 40 Met Val Ile Ser Trp Val Tyr Ser Val Ala Met Thr Ile Gln His Ile 55 Val Ala Glu Lys Glu His Arg Leu Lys Glu Val Met Lys Thr Met Gly 70 Leu Asn Asn Ala Val His Trp Val Ala Trp Phe Ile Thr Gly Phe Val 85 90

Gln Leu Ser Ile Ser Val Thr Ala Leu Thr Ala Ile Leu Lys Tyr Gly 100 105 Gln Val Leu Met His Ser His Val Val Ile Ile Trp Leu Phe Leu Ala 115 120 Val Tyr Ala Val Ala Thr Ile Met Phe Cys Phe 130 135

<210> 1661 <211> 154 <212> PRT <213> Homo sapiens

<400> 1661 Met Lys Pro Gln Met Pro Gly Leu Gly Ala Pro Asn Gly Tyr Gly Pro 1 . 5 10 . 15 Gly Arg Gly Arg Ala Gly Val Pro Gly Gly Pro Glu Arg Arg Pro Trp Val Pro His Leu Leu Pro Phe Ser Ser Pro Gly Tyr Leu Gly Val Met 35 40 45 Lys Ala Gln Lys Pro Gly Ala Gly Glu Gly Met Lys Pro Gln Lys Pro 55 60 Gly Leu Arg Gly Thr Leu Lys Pro Gln Lys Ser Gly His Gly His Glu 70 75 Asn Gly Pro Trp Pro Gly Pro Cys Asn Ala Arg Val Ala Pro Met Leu 85 90 Leu Pro Arg Leu Pro Thr Pro Gly Val Pro Ser Asp Lys Glu Gly Gly 100 105 Trp Gly Leu Lys Ser Gln Pro Pro Ser Ala Val Gln Asn Gly Lys Leu 115 120 125 Pro Gly His Gln Pro Pro Asn Gly Tyr Gly Pro Gly Ala Glu Pro Gly 135 Phe Asn Gly Gly Leu Glu Pro Gln Lys Ile 150

<210> 1662 <211> 134 <212> PRT <213> Homo sapiens

<400> 1662 Trp Leu Ala Gln Glu Trp Ser Pro Cys Thr Val Thr Cys Gly Gln Gly Leu Arg Tyr Arg Val Val Leu Cys Ile Asp His Arg Gly Met His Thr 20 25 Gly Gly Cys Ser Pro Lys Thr Lys Pro His Ile Lys Glu Glu Cys Ile 35 40 Val Pro Thr Pro Cys Tyr Lys Pro Lys Glu Lys Leu Pro Val Glu Ala 55 Lys Leu Pro Trp Phe Lys Gln Ala Gln Glu Leu Glu Glu Gly Ala Ala 70 75 Val Ser Glu Glu Pro Ser Phe Ile Pro Glu Ala Trp Ser Ala Cys Thr 85 90 Val Thr Cys Gly Val Gly Thr Gln Val Arg Ile Val Arg Cys Gln Val Leu Leu Ser Phe Ser Gln Ser Val Ala Asp Leu Pro Ile Asp Glu Cys 115 120 Glu Gly Pro Lys Pro Ala

130 134

<210> 1663 <211> 143 <212> PRT <213> Homo sapiens

<400> 1663 Val Val Ala Asp Asn Cys Arg Gln Gly Tyr Leu Asp Ala Leu Arg Phe 10 Leu Glu Arg Arg Gly Leu Thr Lys Glu Pro Val Leu Trp Thr Leu Val 20 25 Ser Lys Glu Pro Pro Ala Pro Ala Asp Gly Asn Trp Asp Ala Gly Cys 35 40 Asp Gln Arg Arg Lys Gly Gly Leu Ser Leu Asn Trp Lys Val Pro His 50 60 Val Gln Val Lys Asp Val Pro Asn Phe Glu Gln Leu Ser Pro Glu Leu 75 . 80 70 Glu Ala Ala Leu Lys Lys Ala Cys Thr Arg Asp Pro Ser Arg Trp Ala 85 90 95 85 Arg Phe Trp His Ser Gly Pro Gly Gln Val Leu Thr Tyr Leu Leu Leu 110 100 105 Pro Cys Thr Leu Pro Phe Glu Tyr Ile Tyr Phe Arg Ser Arg Arg Leu 115 120 125 Val Val Trp Leu Pro Asp Val Pro Ala Asp Leu Trp Trp Met Gln 135

<210> 1664 <211> 130 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(130) <223> Xaa = any amino acid or nothing

<400> 1664 Leu Asp Xaa Ser His Asn Ala Leu Gln Arg Leu Arg Pro Gly Trp Leu 5 10 Ala Pro Leu Phe Gln Leu Arg Ala Leu His Leu Asp His Asn Glu Leu 20 25 Asp Ala Leu Gly Arg Gly Val Phe Val Asn Ala Ser Gly Leu Arg Leu 35 40 45 Leu Asp Leu Ser Ser Asn Thr Leu Arg Ala Leu Gly Arg His Asp Leu
50 60 55 Asp Gly Leu Gly Ala Leu Glu Lys Leu Leu Leu Phe Asn Asn Arg Leu 75 Val His Leu Asp Glu His Ala Phe His Gly Leu Arg Ala Leu Ser His 85 90 Leu Tyr Leu Gly Cys Asn Glu Leu Ala Ser Phe Ser Phe Asp His Leu 110 100 105 His Gly Leu Ser Ala Thr His Leu Leu Thr Leu Asp Leu Ser Ser Asn 120 Arg Met 130

<210> 1665

<211> 175 <212> PRT <213> Homo sapiens

<400> 1665 Ile Thr Val Ser Thr His Ala Ser Gly Ser Pro Phe Gly Leu Glu Pro 10 Gln Ser Gly Trp Leu Trp Val Arg Ala Ala Leu Asp Arg Glu Ala Gln Glu Leu Tyr Ile Leu Lys Val Met Ala Val Ser Gly Ser Lys Ala Glu 40 Leu Gly Gln Gln Thr Gly Thr Ala Thr Val Arg Val Ser Ile Leu Asn 55 Gln Asn Glu His Ser Pro Arg Leu Ser Glu Asp Pro Thr Phe Leu Ala 70 Val Ala Glu Asn Gln Pro Pro Gly Thr Ser Val Gly Arg Val Phe Ala 85 90 Thr Asp Arg Asp Ser Gly Pro Asn Gly Arg Leu Thr Tyr Ser Leu Gln 100 105 110 Gln Leu Ser Glu Asp Ser Lys Ala Phe Arg Ile His Pro Gln Thr Gly 115 120 125 Glu Val Thr Thr Leu Gln Thr Leu Asp Arg Glu Gln Gln Ser Ser Tyr 135 140 Gln Leu Leu Val Gln Val Gln Asp Gly Gly Ser Pro Pro Arg Ser Thr 145 150 155 160 Thr Gly Thr Val His Val Ala Val Leu Asp Leu Asn Asp Asn Thr 170

<210> 1666 <211> 133 <212> PRT <213> Homo sapiens

<400> 1666 Glu Leu Val Val Glu Leu Val Ser Ala Gly Lys Ser Gly Pro Glu Arg 10 Asn Thr Tyr Glu Val Gln Val Val Thr Gly Asn Val Pro Lys Ala Gly 20 25 Thr Asp Ala Asn Val Tyr Leu Thr Ile Tyr Gly Glu Glu Tyr Gly Asp 40 Thr Gly Glu Arg Pro Leu Lys Lys Ser Asp Lys Ser Asn Lys Phe Glu 55 60 Gln Gly Gln Thr Asp Thr Phe Thr Ile Tyr Ala Ile Asp Leu Gly Ala 75 70 Leu Thr Lys Ile Arg Ile Arg His Asp Asn Thr Gly Asn Arg Ala Gly 90 Trp Phe Leu Asp Arg Ile Asp Ile Thr Asp Met Asn Asn Glu Ile Thr 100 105 Tyr Tyr Phe Pro Cys Gln Arg Trp Leu Ala Val Glu Glu Asp Asp Gly 115 120 Gln Leu Ser Arg Glu 130

<210> 1667 <211> 146 <212> PRT <213> Homo sapiens

<400> 1667 Val Leu Asn Cys Gln Gly Arg Pro Thr Arg Pro Val Arg Ile Asn Gly 10 Asp Gly Gln Glu Val Leu Tyr Leu Ala Glu Ser Asp Asn Val Arg Leu 25 Gly Cys Pro Tyr Val Leu Asp Pro Asp Asp Tyr Gly Pro Asn Gly Leu 40 45 Asp Ile Glu Trp Met Gln Val Asn Ser Asn Pro Ala His His Arg Glu 55 60 Asn Val Phe Leu Ser Tyr Gln Asp Lys Arg Ile Asn His Gly Ser Leu 70 Pro His Leu Gln His Arg Val Arg Phe Ala Ala Ser Asp Pro Ser Gln 85 90 Tyr Asp Ala Ser Ile Asn Leu Met Asn Leu Gln Val Ser Asp Thr Ala 100 105 Thr Tyr Glu Cys Arg Val Lys Lys Thr Thr Met Ala Thr Arg Lys Val 120 125 Ile Val Thr Val Gln Ala Arg Pro Ala Val Pro Met Cys Trp Thr Glu 135 Gly Gln 145 146

<210> 1668 <211> 98 <212> PRT <213> Homo sapiens

Ile His

<210> 1669 <211> 110 <212> PRT <213> Homo sapiens

Gly Gly Leu Cys Gln His Leu Ile Phe Pro His Ser Thr Thr Val Leu 65 70 75 75 80

Ala Leu Ala Phe Ser Pro Asp Asp Arg Leu Leu Val Thr Leu Gly Asp 90 95

His Asp Gly Arg Thr Leu Ala Leu Trp Gly Thr Gly His Leu 110 110 110

<210> 1670 <211> 124 <212> PRT <213> Homo sapiens

<400> 1670 Ile Asp Glu Ser Thr Gly Leu Ile Ile Thr Val Asm Tyr Leu Asp Tyr Glu Thr Lys Thr Ser Tyr Met Met Asn Val Ser Ala Thr Asp Gln Ala 20 25 Pro Pro Phe Asn Gln Gly Phe Cys Ser Val Tyr Ile Thr Leu Leu Asn 35 40 45 Glu Leu Asp Glu Ala Val Gln Phe Ser Asn Ala Ser Tyr Glu Ala Ala 55 60 Ile Leu Glu Asn Leu Ala Leu Gly Thr Glu Ile Val Arg Val Gln Ala 70 75 Tyr Ser Ile Asp Asn Leu Asn Gln Ile Thr Tyr Arg Phe Asp Ala Tyr 90 85 Thr Ser Thr Gln Ala Lys Ala Leu Phe Lys Ile Asp Ala Ile Thr Val 105 100 Arg Gly Trp Gly Gln Gly Ala Pro Phe Pro Ile 115 120

<210> 1671 <211> 126 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(126) <223> Xaa = any amino acid or nothing

<400> 1671 Arg Ile Pro Arg Gly Lys Ala Cys Kaa Thr Val Leu Gly Arg Ser Thr 10 Gly Glu Leu Glu Gly Phe Ala Ser Ser Arg Leu Pro Pro Gln Pro Cys 20 25 Gly Trp Gly Gln Ser Ser Asp Leu Leu Ser Arg Ile Asp Leu Asp Glu 40 Leu Met Lys Lys Asp Glu Pro Pro Leu Asp Phe Pro Asp Thr Leu Glu 55 60 Gly Phe Glu Tyr Ala Phe Asn Glu Lys Gly Gln Leu Arg His Ile Lys 70 75 Thr Gly Glu Pro Phe Val Phe Asn Tyr Arg Glu His Leu His Arg Trp 85 90 Asn Gln Lys Arg Tyr Glu Ala Leu Gly Glu Ile Ile Thr Lys Tyr Val 100 105 110 Tyr Glu Leu Leu Glu Lys Asp Cys Asn Ser Lys Lys Val Ser 120

<210> 1673 <211> 75 <212> PRT <213> Homo sapiens

<210> 1674 <211> 91 <212> PRT <213> Homo sapiens

<400> 1674 Leu Cys Tyr Phe Ser Ala Arg Tyr His Gln Arg Lys Ile Phe Gly Ile 1 5 10 Leu Tyr Ile Phe Thr Leu Ser Ala Ile Asn Arg Lys Glu Pro Asn Leu 20 25 Phe Ile Tyr Leu Phe Ile Phe Phe Glu Met Glu Ser His Ser Val Thr 40 His Ala Gly Val Gln Arg His Asn Leu Asn Ser Leu Gln Pro Leu Pro 55 60 Pro Gly Phe Lys Arg Phe Ser Cys Leu Cys Phe Leu Ser Ser Trp Asn 65 70 Tyr Arg Gly Ala Pro Pro Gly Pro Ala Asn Phe

<210> 1675 <211> 51 <212> PRT <213> Homo sapiens

<210> 1676 <211> 45 <212> PRT <213> Homo sapiens

<400> 1676
Lys Met Val Arg Gly Ser Lys Lys Leu Ile Ser Phe Phe Pro Gly Gly
1 5 10 15

Pro Tyr Gly Ile Leu Ala Gly Arg Asp Pro Ser Lys Gly Leu Ala Thr
20 25 30

Phe Cys Leu Asn Lys Glu Ala Leu Lys Asp Glu Phe Glu
35 40 45

<210> 1677 <211> 128 <212> PRT <213> Homo sapiens

<400> 1677 Leu Thr Leu Glu Phe Leu Leu Leu Pro Ala Ala Ser Glu Leu Ala His 10 Gly Lys Arg Leu Ala Cys Cys Ile Val Asp His Lys Leu Pro Glu Cys 20 25 30 Gly Phe Tyr Gly Leu Tyr Asp Lys Ile Leu Leu Phe Lys His Asp Pro 35 40 45 Thr Ser Ala Asn Leu Leu Gln Leu Val Arg Ser Ser Gly Asp Ile Gln 55 60 Glu Gly Asp Leu Val Glu Val. Val Leu Ser Ala Ser Ala Thr Phe Glu 70 75 Asp Phe Gln Ile Arg Pro His Ala Leu Thr Val His Ser Tyr Arg Ala 85 90 Pro Ala Phe Cys Asp His Cys Gly Glu Met Leu Phe Gly Leu Val Arg 100 105 110 Gln Gly Leu Lys Cys Asp Gly Cys Gly Leu Asn Tyr His Lys Arg Cys 120 125

<210> 1678

<211> 185 <212> PRT <213> Homo sapiens

<400> 1678 Ile Thr Arg Pro Thr Ile Ser Cys Gln Arg Pro Gly Pro Gly Leu Ala 10 Ala Gly Met Leu Pro Tyr Thr Val Asn Phe Lys Val Ser Ala Arg Thr 25 Leu Thr Gly Ala Leu Asn Ala His Asn Lys Ala Ala Val Asp Trp Gly 35 40 45 Trp Gln Gly Leu Ile Ala Tyr Gly Cys His Ser Leu Val Val Val Ile 60 55 Asp Ser Ile Thr Ala Gln Thr Leu Gln Val Leu Glu Lys His Lys Ala 70 Asp Val Val Lys Val Lys Trp Ala Arg Glu Asn Tyr His His Asn Ile 90 Gly Ser Pro Tyr Cys Leu Arg Leu Ala Ser Ala Asp Val Asn Gly Lys 100 105 Ile Ile Val Trp Asp Val Ala Ala Gly Val Ala Gln Cys Glu Ile Gln
115 120 125 Glu His Ala Lys Pro Ile Gln Asp Val Gln Trp Leu Trp Asn Gln Asp 135 Ala Ser Arg Asp Leu Leu Leu Ala Ile His Pro Pro Asn Tyr Ile Val 150 155 160 Leu Trp Asn Ala Asp Thr Gly Thr Lys Leu Trp Lys Lys Ser Tyr Ala 165 170 Asp Asn Ile Leu Ser Phe Ser Phe Asp 180

<210> 1679 <211> 217 <212> PRT <213> Homo sapiens

<400> 1679 Ser Val Asn Leu Pro Pro Ser Leu Trp Pro Trp Glu Glu Ala Met Asp 1 5 10 Ser Thr Lys Ser Glu Pro Leu Lys Gly Ser Pro Glu Ala Glu Asp Gly 25 Asn Ile Glu Tyr Lys Lys Leu Val Asn Pro Ser Gln Tyr Arg Phe Glu 40 His Leu Val Thr Gln Met Lys Trp Arg Leu Gln Glu Gly Arg Gly Glu 55 Ala Val Tyr Gln Ile Gly Val Glu Asp Asn Gly Leu Leu Val Gly Leu 70 Ala Glu Glu Met Arg Ala Ser Leu Lys Thr Leu His Arg Met Ala 90 Glu Lys Val Gly Ala Asp Ile Thr Val Leu Arg Glu Arg Glu Val Asp 100 . 105 110 Tyr Asp Ser Asp Met Pro Arg Lys Ile Thr Glu Val Leu Val Arg Lys 115 . 120 Val Pro Asp Asn Gln Gln Phe Leu Asp Leu Arg Val Ala Val Leu Gly 135 140 Asn Val Asp Ser Gly Lys Ser Thr Leu Leu Gly Val Leu Thr Gln Gly 150 155 160 Glu Leu Asp Asn Gly Arg Gly Arg Ala Arg Leu Asn Leu Phe Arg His 165 170 175 Leu His Glu Ile Gln Ser Gly Arg Thr Ser Ser Ile Ser Phe Glu Ile 180 185

Leu Gly Phe Asn Ser Lys Gly Glu Val His Gly Ile Asn Gly Thr Gln
195 200 205

Trp Gly Gln Thr Leu Arg Met Gly Trp
210 215 217

<210> 1680 <211> 131 <212> PRT <213> Homo sapiens

<400> 1680 Leu Cys Ser Thr Leu Leu Leu Leu Thr Ile Pro Ser Trp Val Leu Ser 5 10 Gln Ile Thr Leu Lys Glu Ser Gly Pro Thr Leu Met Lys Pro Thr Glu 20 25 Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Asn Thr Ser 40 Gly Val Gly Val Ala Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu 55 60 Trp Leu Ala Leu Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Ser Pro Ser 70 75 Leu Asn Asp Arg Leu Thr Ile Ala Lys Asp Thr Ser Arg Asn Gln Val 85 90 Val Leu Thr Met Thr Asn Met Gly Pro Val Asp Thr Ala Thr Tyr Tyr 105 100 Cys Ala Gln Phe Ala Arg Gly Ala Arg Gly Ser Asn Trp Phe Asp Pro 115 120 125 Trp Gly Gln 130 131

<210> 1681 <211> 501 <212> PRT <213> Homo sapiens

<400> 1681 Ala Gly Ile Arg His Glu Ala Pro Pro Thr Thr Ser Asn Arg His Arg 10 Arg Gln Ile Asp Arg Gly Val Thr His Leu Asn Ile Ser Gly Leu Lys 20 25 Met Pro Arg Gly Ile Ala Ile Asp Trp Val Ala Gly Asn Val Tyr Trp 40 Thr Asp Ser Gly Arg Asp Val Ile Glu Val Ala Gln Met Lys Gly Glu 55 60 Asn Arg Lys Thr Leu Ile Ser Gly Met Ile Asp Glu Pro His Ala Ile 75 70 Val Val Asp Pro Leu Arg Gly Thr Met Tyr Trp Ser Asp Trp Gly Asn 85 90 His Pro Lys Ile Glu Thr Ala Ala Met Asp Gly Thr Leu Arg Glu Thr 100 105 110 Leu Val Gln Asp Asn Ile Gln Trp Pro Thr Gly Leu Ala Val Asp Tyr 120 125 His Asn Glu Arg Leu Tyr Trp Ala Asp Ala Lys Leu Ser Val Ile Gly
130 140 135 Ser Ile Arg Leu Asn Gly Thr Asp Pro Ile Val Ala Ala Asp Ser Lys 150 . 155 Arg Gly Leu Ser His Pro Phe Ser Ile Asp Val Phe Glu Asp Tyr Ile 165 170

Tyr Gly Val Thr Tyr Ile Asn Asn Arg Val Phe Lys Ile His Lys Phe 180 185 Gly His Ser Pro Leu Val Asn Leu Thr Gly Gly Leu Ser His Ala Ser 195 200 205 Asp Val Val Leu Tyr His Gln His Lys Gln Pro Glu Val Thr Asn Pro 215 220 Cys Asp Arg Lys Lys Cys Glu Trp Leu Cys Leu Leu Ser Pro Ser Gly 225 230 235 240 Pro Val Cys Thr Cys Pro Asn Gly Lys Arg Leu Asp Asn Gly Thr Cys 245 250 255 Val Pro Val Pro Ser Pro Thr Pro Pro Pro Asp Ala Pro Arg Pro Gly 265 260 270 Thr Cys Asn Leu Gln Cys Phe Asn Gly Gly Ser Cys Phe Leu Asn Ala 280 Arg Arg Gln Pro Lys Cys Arg Cys Gln Pro Arg Tyr Thr Gly Asp Lys 295 300 Cys Glu Leu Asp Gln Cys Trp Glu His Cys Arg Asn Gly Gly Thr Cys 310 315 305 Ala Ala Ser Pro Ser Gly Met Pro Thr Cys Arg Cys Pro Thr Gly Phe 335 325· 330 Thr Gly Pro Lys Cys Thr Gln Gln Val Cys Ala Gly Tyr Cys Ala Asn 340 345 Asn Ser Thr Cys Thr Val Asn Gln Gly Asn Gln Pro Gln Cys Arg Cys 360 365 Leu Pro Gly Phe Leu Gly Asp Arg Cys Gln Tyr Arg Gln Cys Ser Gly 375 380 Tyr Cys Glu Asn Phe Gly Thr Cys Gln Met Ala Ala Asp Gly Ser Arg 390 385 395 Gln Cys Arg Cys Thr Ala Tyr Phe Glu Gly Ser Arg Cys Glu Val Asn 405 410 Lys Cys Ser Arg Cys Leu Glu Gly Ala Cys Val Val Asn Lys Gln Ser 420 425 430 Gly Asp Val Thr Cys Asn Cys Thr Asp Gly Arg Val Ala Pro Ser Cys 440 445 Leu Thr Cys Val Gly His Cys Ser Asn Gly Gly Ser Cys Thr Met Asn 455 460 Ser Lys Met Met Pro Glu Cys Gln Cys Pro Pro His Met Thr Gly Pro 470 475 Arg Cys Glu Glu His Val Phe Ser Gln Gln Pro Gly His Ile Ala 485 490 Ser Ile Leu Ile Pro 500 501

<210> 1682 <211> 316 <212> PRT <213> Homo sapiens

Lys Ser Pro Phe Lys Arg Arg Arg Ser Met Asn Glu Ile Lys Asn Leu 100 105 Glm Tyr Leu Pro Arg Thr Ser Glu Pro Arg Glu Val Leu Phe Glu Asp 120 Arg Thr Arg Ala His Ala Asp His Val Gly Gln Gly Phe Asp Trp Gln 135 140 Ser Thr Ala Ala Val Gly Val Leu Lys Ala Val Gln Phe Gly Glu Trp 150 155 Ser Asp Gln Pro Arg Ile Thr Lys Asp Val Ile Cys Phe His Ala Glu 165 170 175 Asp Phe Thr Asp Val Val Gln Arg Leu Gln Leu Asp Leu His Glu Pro 180 195 185 Pro Val Ser Gln Cys Val Gln Trp Val Asp Glu Ala Lys Leu Asn Gln 195 200 205 Met Arg Arg Glu Gly Ile Arg Tyr Ala Arg Ile Gln Leu Cys Asp Asn 215 220 Asp Ile Tyr Phe Ile Pro Arg Asn Val Ile His Gln Phe Lys Thr Val 225 230 235 240 Ser Ala Val Cys Ser Leu Ala Trp His Ile Arg Leu Lys Gln Tyr His 245 250 255 Pro Val Val Glu Ala Thr Gln Asn Thr Glu Ser Asn Ser Asn Met Asp 260 265 270 Cys Gly Leu Thr Gly Lys Arg Glu Leu Glu Val Asp Ser Gln Cys Val 280 Arg Ile Lys Thr Glu Ser Glu Glu Ala Cys Thr Glu Ile Gln Leu Leu 295 300 Thr Thr Ala Ser Ser Ser Phe Pro Pro Ala Ser Glu 305 310 315 316

<210> 1683 <211> 110 <212> PRT

<213> Homo sapiens

<400> 1683 Ser Ala Cys Ser Thr Gly Fro Glu Leu Pro Gly Arg Ala Thr Arg Ser 10 Leu Thr Arg Pro Ala Asn Gln Lys Gly Cys Asp Gly Asp Arg Leu Tyr 20 25 30 Tyr Asp Gly Cys Ala Met Ile Ala Met Asn Gly Ser Val Phe Ala Gln 35 40 Gly Ser Gln Phe Ser Leu Asp Asp Val Glu Val Leu Thr Ala Thr Leu 55 Asp Leu Glu Asp Val Arg Ser Tyr Arg Ala Glu Ile Ser Ser Arg Asn 70 75 Leu Ala Val Ser Ala Pro Val Asp Thr Cys Val Gly Cys Ser Ser Lys 85 90 Thr Trp Lys Val Ala Pro Phe Val Arg Ala Trp Trp Arg Pro 100

<210> 1684 <211> 80 <212> PRT <213> Homo sapiens

<400> 1684
Val Ile Thr Asp Leu Glu Glu Gln Leu Asn Gln Leu Thr Glu Asp Asn
1 5 10 15

Ala Glu Leu Asn Asn Gln Asn Phe Tyr Leu Ser Lys Gln Leu Asp Glu 20 25 30

Ala Ser Gly Ala Asn Asp Glu Ile Val Gln Leu Arg Ser Glu Val Asp 35 40 45

His Leu Arg Arg Glu Ile Thr Glu Arg Glu Met Gln Leu Thr Ser Gln 50 55 5 60

Lys Gln Val Arg Arg Val Asn Lys Val Val Arg Ser Leu Glu Asp Phe 65 70 80

<210> 1685 <211> 281 <212> PRT <213> Homo sapiens

Gln Tyr Gln Gly His Tyr Tyr Glu Trp Leu Pro Arg Tyr Asn Asp Pro 65 70 75 80 Ala Ala Pro Cys Ala Leu Lys Cys His Ala Gln Gly Gln Asn Leu Val

Ala Ala Pro Cys Ala Leu Lys Cys His Ala Gln Gly Gln Asn Leu Val 85 90 95 Val Glu Leu Ala Pro Lys Val Leu Asp Gly Thr Arg Cys Asn Thr Asp

Ser Leu Asp Met Cys Ile Ser Gly Ile Cys Gln Ala Val Gly Cys Asp

Arg Gln Leu Gly Ser Asn Ala Lys Glu Asp Asn Cys Gly Val Cys Ala 130 135 140

Gly Asp Gly Ser Thr Cys Arg Leu Val Arg Gly Gln Ser Lys Ser His 145 150 155 160 Val Ser Pro Glu Lys Arg Glu Glu Asn Val Ile Ala Val Pro Leu Gly

Val Ser Pro Glu Lys Arg Glu Glu Asn Val Ile Ala Val Pro Leu Gly
165 170 175

Ser Arg Ser Val Arg Ile Thr Val Lys Gly Pro Ala His Leu Phe Ile 180 185 190

Glu Ser Lys Thr Leu Gln Gly Ser Lys Gly Glu His Ser Phe Asn Ser 195 200 205 Pro Gly Val Phe Val Val Glu Asn Thr Thr Val Glu Phe Gln Arg Gly

210 215 220 Ser Glu Arg Gln Thr Phe Lys Ile Pro Gly Pro Leu Met Ala Asp Phe

225 230 235 240 Ile Phe Lys Thr Arg Tyr Thr Ala Ala Lys Asp Ser Val Val Gln Phe

245 250 255
Phe Phe Tyr Gln Pro Ile Ser His Gln Trp Arg Gln Thr Asp Phe Phe 260 265 270

Pro Cys Thr Val Thr Cys Gly Gly Gly 275 280 281

<210> 1686 <211> 98 <212> PRT

<213> Homo sapiens

<210> 1687 <211> 236 <212> PRT <213> Homo sapiens

<400> 1687 Ile Leu Thr Ser Leu Val Glu Leu Thr Arg Phe Glu Thr Leu Thr Pro 10 Arg Phe Ser Ala Thr Val Pro Pro Cys Trp Val Glu Val Gln Glu 25 Gln Gln Gln Arg Arg His Pro Gln His Leu His Gln Gln His His Gly 40 Asp Ala Ala Gln His Thr Arg Thr Trp Lys Leu Gln Thr Asp Ser Asn 50 55 60 Ser Trp Asp Glu His Val Phe Glu Leu Val Leu Pro Lys Ala Cys Met 70 75 Val Gly His Val Asp Phe Lys Phe Val Leu Asn Ser Asn Ile Thr Asn 90 Ile Pro Gln Ile Gln Val Thr Leu Leu Lys Asn Lys Ala Pro Gly Leu 100 105 110 Gly Lys Val Asn Gly Leu Arg Leu Cys Pro Phe Leu Glu Asp His Lys 115 . 120 125 Glu Asp Ile Leu Cys Gly Pro Val Trp Leu Ala Ser Gly Leu Asp Leu 130 135 140 Ser Gly His Ala Gly Met Leu Thr Leu Thr Ser Pro Lys Leu Val Lys 145 150 155 160 Gly Met Ala Gly Gly Lys Tyr Arg Ser Phe Leu Ile His Val Lys Ala 165 170 Val Asn Glu Arg Gly Thr Glu Glu Ile Cys Asn Gly Gly Met Arg Pro 180 185 190 Val Val Arg Leu Pro Ser Leu Lys His Gln Ser Asn Lys Gly Tyr Ser 195 200 205 Leu Ala Ser Leu Leu Ala Lys Val Ala Ala Gly Lys Glu Lys Ser Ser 210 215 220 Asn Val Lys Asn Glu Asn Thr Ser Gly Thr Arg Lys 230 235 236

<210> 1688
<211> 100
<212> PRT
<213> Homo sapiens

<400> 1688 Lys Ala Phe Tyr Asn Tyr His Val Leu Glu Leu Gln Met Leu Val 10 Thr Gly Gly Val Ser Ser Gln Leu Glu Gln His Leu Asp Lys Asp Lys 20 25 Val Tyr Gly Val Ala Asp Ser Cys Thr Ser Leu Leu Ser Gly Arg Asn 40 Arg Cys Lys Leu Gly Leu Leu Ser Leu His Glu Thr Ile Leu Ser Asp 55 60 Val Asn Pro Arg Asn Thr Phe Gly Gln Leu Phe Cys Gly Ser Leu Asp 70 75 Leu Phe Gly Ile Leu Cys Val Gly Leu Tyr Arg Ile Ile Asp Glu Glu 90 Glu Leu Asn Pro 100

<210> 1689 <211> 42 <212> PRT <213> Homo sapiens

<210> 1690 <211> 415 <212> PRT <213> Homo sapiens

<400> 1690 Asp Leu Trp Gln Phe Thr Pro Leu His Glu Ala Ala Ser Lys Asn Arg 10 Val Glu Val Cys Ser Leu Leu Leu Ser Tyr Gly Ala Asp Pro Thr Leu 20 25 Leu Asn Cys His Asn Lys Ser Ala Ile Asp Leu Ala Pro Thr Pro Gln 40 Leu Lys Glu Arg Leu Ala Tyr Glu Phe Lys Gly His Ser Leu Leu Gln 55 60 Ala Ala Arg Glu Ala Asp Val Thr Arg Ile Lys Lys His Leu Ser Leu 70 ' 75 Glu Met Val Asn Phe Lys His Pro Gln Thr His Glu Thr Ala Leu His 85 90 Cys Ala Ala Ala Ser Pro Tyr Pro Lys Arg Lys Gln Ile Cys Glu Leu 100 105 110 Leu Leu Arg Lys Gly Ala Asn Ile Asn Glu Lys Thr Lys Glu Phe Leu 120 125 115 Thr Pro Leu His Val Ala Ser Glu Lys Ala His Asn Asp Val Val Glu 135 Val Val Val Lys His Glu Ala Lys Val Asn Ala Leu Asp Asn Leu Gly 150 155 Gln Thr Ser Leu His Arg Ala Ala Tyr Cys Gly His Leu Gln Thr Cys 165 170

Arg Leu Leu Ser Tyr Gly Cys Asp Pro Asn Ile Ile Ser Leu Gln 185 Gly Phe Thr Ala Leu Gln Met Gly Asn Glu Asn Val Gln Gln Leu Leu 200 205 Gln Glu Gly Ile Ser Leu Gly Asn Ser Glu Ala Asp Arg Gln Leu Leu 215 220 Glu Ala Ala Lys Ala Gly Asp Val Glu Thr Val Lys Lys Leu Cys Thr 230 Val Gln Ser Val Asn Cys Arg Asp Ile Glu Gly Arg Gln Ser Thr Pro 245 250 Leu His Phe Ala Ala Gly Tyr Asn Arg Val Ser Val Val Glu Tyr Leu 265 260 Leu Gln His Gly Ala Asp Val His Ala Lys Asp Lys Gly Gly Leu Val 280 Pro Leu His Asn Ala Cys Ser Tyr Gly His Tyr Glu Val Ala Glu Leu 295 300 Leu Val Lys His Gly Ala Val Val Asn Val Ala Asp Leu Trp Lys Phe 310 315 Thr Pro Leu His Glu Ala Ala Ala Lys Gly Lys Tyr Glu Ile Cys Lys 330 325 Leu Leu Cln His Gly Ala Asp Pro Thr Lys Lys Asn Arg Asp Gly 345 350 340 Asn Thr Pro Leu Asp Leu Val Lys Asp Gly Asp Thr Asp Ile Gln Asp 360 365 Leu Leu Arg Gly Asp Ala Ala Leu Leu Asp Ala Ala Lys Lys Gly Cys 380 375 Leu Ala Arg Val Lys Lys Leu Ser Ser Pro Asp Asn Val Asn Cys Arg 390 395 Asp Thr Gln Gly Arg His Ser Thr Pro Leu His Leu Ala Gly Lys 405 410

<210> 1691 <211> 182 <212> PRT <213> Homo sapiens

180

182

<400> 1691 Gly Val Leu Ile Pro Ser Phe Gln Asn Gln Leu Phe Ala Asp Ile Leu . 5 10 Ala Gly Ile Glu Ser Val Thr Ser Glu His Asn Tyr Gln Thr Leu Ile 20 25 Ala Asn Tyr Asn Tyr Asp Arg Asp Ser Glu Glu Glu Ser Val Ile Asn 40 Leu Leu Ser Tyr Asn Ile Asp Gly Ile Ile Leu Ser Glu Lys Tyr His 55 Thr Ile Arg Thr Val Lys Phe Leu Arg Ser Ala Thr Ile Pro Val Val 70 75 Glu Leu Met Asp Val Gln Gly Glu Arg Leu Asp Met Glu Val Gly Phe 85 90 Asp Asn Arg Gln Ala Ala Phe Asp Met Val Cys Thr Met Leu Glu Lys 105 Arg Val Arg His Lys Ile Leu Tyr Leu Gly Ser Lys Asp Asp Thr Arg 125 115 120 Asp Glu Gln Arg Tyr Gln Gly Tyr Cys Asp Ala Met Met Leu His Asn 135 140 Leu Ser Pro Leu Arg Met Asn Pro Arg Ala Ile Ser Ser Ile His Leu 150 155 Arg Met Gln Leu Met Arg Asp Ala Leu Ser Ala Asn Pro Asp Leu Asp 170 165 Gly Val Phe Cys Thr Asn

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<210> 1692
<211> 153
<212> PRT
<213> Homo sapiens
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<400> 1692 Arg Ile Asn Arg Cys Arg Lys Pro Ser Asp Ala Asp Ile Leu Val Pro 10 Gly Asp Thr Ile Ser Leu Ile Gly Thr Thr Ser Leu Arg Ile Asp Tyr 25 Asm Glu Ile Asp Asp Asn Arg Val Thr Ala Glu Glu Val Asp Ile Leu Leu Arg Glu Gly Glu Lys Leu Ala Pro Val Met Ala Lys Thr Arg Ile _____55 60 50 Leu Arg Ala Tyr Ser Gly Val Arg Pro Leu Val Ala Ser Asp Asp Asp 70 75 Pro Ser Gly Arg Asn Val Ser Arg Gly Ile Val Leu Leu Asp His Ala 85 90 Glu Arg Asp Gly Leu Asp Gly Phe Ile Thr Ile Thr Gly Gly Lys Leu 100 105 110 Met Thr Tyr Arg Leu Met Ala Glu Trp Ala Thr Asp Ala Val Cys Arg 115 120 125 Lys Leu Gly Asn Thr Arg Pro Cys Thr Thr Ala Asp Leu Ala Leu Pro 135 Gly Ser Gln Glu Pro Ala Lys Val Pro 145 150 153

<210> 1693 <211> 83 <212> PRT <213> Homo sapiens

<400> 1693 Leu Leu Ile Tyr Leu Ala Ile Phe Ala Pro Val Ala Met Ser Ala Leu 1 5 10 Ala Gly Val Lys Ser Val Gln Gln Val Arg Ile Arg Ala Ala Gln Ser 20 25 Leu Gly Ala Ser Arg Ala Gln Val Leu Trp Phe Val Ile Leu Pro Gly 35 40 Ala Leu Pro Glu Ile Leu Thr Gly Leu Arg Ile Gly Leu Gly Val Gly 60 50 55 Trp Ser Thr Leu Val Ala Ala Glu Leu Ile Ala Ala Thr Arg Gly Leu 65 70 Gly Phe Met 83

<210> 1694 <211> 45 <212> PRT <213> Homo sapiens

Thr Phe Cys Cys Leu Leu Ile Gly Tyr Pro Leu Ala Trp Ala Val Ala
20
25
30
His Ser Lys Pro Ser Thr Arg Asn Ile Leu Leu Leu Leu
35
40

<210> 1695 <211> 155 <212> PRT <213> Homo sapiens

<400> 1695 Leu Lys Ile Arg Gly Gln Arg Ile Glu Leu Gly Glu Ile Asp Arg Val Met Gln Ala Leu Pro Asp Val Glu Gln Ala Val Thr His Ala Cys Val 25 Ile Asn Gln Ala Ala Ala Thr Gly Gly Asp Ala Arg Gln Leu Val Gly 40 Tyr Leu Val Ser Gln Ser Gly Leu Pro Leu Asp Thr Ser Ala Leu Gln Ala Gln Leu Arg Glu Thr Leu Pro Pro His Met Val Pro Val Val Leu 70 75 Leu Gln Leu Pro Gln Leu Pro Leu Ile Ala Asn Gly Lys Leu Asp Arg 85 90 Lys Ala Leu Pro Leu Pro Glu Leu Lys Ala Gln Ala Pro Gly Arg Ala 100 105 110 Pro Lys Ala Gly Ser Glu Thr Ile Ile Ala Ala Ala Phe Ser Ser Leu 120 Leu Gly Cys Asp Val Gln Asp Ala Asp Ala Asp Phe Phe Ala Leu Gly 135 140 130 Gly His Ser Leu Leu Ala Met Lys Leu Ala Thr 150

<210> 1696 <211> 134 <212> PRT

<213> Homo sapiens

<400> 1696 Gln Asn Ile Thr Ser Lys Asp Leu Asp Val Arg Leu Asp Pro Gln Thr 10 Val Pro Ile Glu Leu Glu Gln Leu Val Leu Ser Phe Asn His Met Ile 20 25 Glu Arg Ile Glu Asp Val Phe Thr Arg Gln Ser Asn Phe Ser Ala Asp 40 Ile Ala His Glu Ile Arg Thr Pro Ile Thr Asn Leu Ile Thr Gln Thr 55 Glu Ile Ala Leu Ser Gln Ser Arg Ser Gln Lys Glu Leu Glu Asp Val 70 75 Leu Tyr Ser Asn Leu Glu Glu Leu Thr Arg Met Ala Lys Met Val Ser 90 Asp Met Leu Phe Leu Ala Gln Ala Asp Asn Asn Gln Leu Ile Pro Glu 105 110 Lys Lys Met Leu Asn Leu Ala His Glu Val Gly Lys Val Phe Asp Gln 115 120 Phe Glu Ala Leu Pro Glu 134

<210> 1697 <211> 112 <212> PRT <213> Homo sapiens

<400> 1697 Asn Glu Leu Thr Phe Lys Glu Ala Glu Ile Ser Lys Leu Tyr Thr Lys 1 5 10 Val His Pro Ala Tyr Arg Thr Leu Leu Glu Lys Arg Gln Ala Leu Glu 20 25 Asp Glu Lys Ala Lys Leu Asn Gly Arg Val Thr Ala Met Pro Lys Thr 35 40 Gln Gln Glu Ile Val Arg Leu Thr Arg Asp Val Glu Ser Gly Gln Gln 55 Val Tyr Met Gln Leu Leu Asn Lys Glu Gln Glu Leu Lys Ile Thr Glu 65 70 75 80 Ala Ser Thr Val Gly Asp Val Arg Ile Val Asp Pro Ala Ile Thr Gln 85 90 Pro Gly Val Leu Lys Pro Lys Lys Gly Leu Ile Ile Leu Gly Ala Ile 105

<210> 1698 <211> 238 <212> PRT <213> Homo sapiens

<400> 1698 Thr Gln Ala Met Val Trp Gln Gln Lys Ala Cys Ala Glu Asp Asp Pro 10 Gln Leu Ser Gly Arg His Trp Leu His Ala Ala Thr Leu Tyr Asn Ile 20 25 30 Ala Ala Tyr Pro His Leu Lys Gly Asp Asp Leu Ala Glu Gln Ala Gln 35 40 45 Ala Leu Ser Asn Arg Ala Tyr Glu Glu Ala Ala Gln Arg Leu Pro Gly 55 Thr Met Arg Gln Met Glu Phe Thr Val Pro Gly Gly Ala Pro Ile Thr 70 75 Gly Phe Leu His Met Pro Lys Gly Asp Gly Pro Phe Pro Thr Val Leu 85 90 Met Cys Gly Gly Leu Asp Ala Met Gln Thr Asp Tyr Tyr Ser Leu Tyr 100 105 110 Glu Arg Tyr Phe Ala Pro Arg Gly Ile Ala Met Leu Thr Ile Asp Met 115 120 125 Pro Ser Val Gly Phe Ser Ser Lys Trp Lys Leu Thr Gln Asp Ser Ser 135 140 Leu Leu His Gln His Val Leu Lys Ala Leu Pro Asn Val Pro Trp Val 150 155 Asp His Thr Arg Val Ala Ala Phe Gly Phe Arg Phe Gly Ala Asn Val 165 170 175 Ala Val Arg Leu Ala Tyr Leu Glu Ser Pro Arg Leu Lys Ala Val Ala 185 190 Cys Leu Gly Pro Val Val His Thr Leu Leu Ser Gly Leu Lys Cys Gln 195 200 205 Gln Gln Val Pro Glu Met Tyr Leu Asp Val Leu Ala Ser Arg Leu Gly 210 215 220 Met His Asp Ala Ser Thr Lys Ser Ser Thr Arg Glu Asn His 230 235 238

<210> 1699 <211> 82 <212> PRT <213> Homo sapiens

 <400> 1699

 Arg Ile Arg Ser Ser Asp Pro Glu Ile Thr Leu Ala Gly Thr Pro Leu

 1
 5

 His Ala Ala Tyr Leu Ile Gly Met Thr Leu Ile Cys Ala Gly Phe Ser

 20
 25

 30

 Val Gly Phe Gly Val Ala Met Ser Gln Ala Leu Gly Pro Phe Ser Leu

 35
 40

 45

 Arg Ala Gly Val Ala Ser Ser Thr Leu Gly Ile Ala Gln Val Cys Gly

 50
 55

 Ser Ser Leu Trp Ile Trp Leu Ala Ala Val Val Gly Ile Gly Ala Trp

 65
 70

 Asn Met

<210> 1700 <211> 140 <212> PRT <213> Bomo sapiens

<400> 1700 Glu Ala Pro Glu Ala Thr Pro Gln Pro Ser Gln Pro Gly Pro Ser Ser 10 Pro Ile Ser Leu Ser Ala Glu Glu Glu Asn Ala Glu Gly Glu Val Ser Arg Ala Asn Thr Pro Asp Ser Asp Ile Thr Glu Lys Thr Glu Asp Ser 35 40 45 Ser Val Pro Glu Thr Pro Asp Asn Glu Arg Lys Ala Ser Ile Ser Tyr 55 60 Phe Lys Asn Gln Arg Gly Ile Gln Tyr Ile Asp Leu Ser Ser Asp Ser 70 75 Glu Asp Val Val Ser Pro Asn Cys Ser Asn Thr Val Gln Glu Lys Thr 90 85 Phe Asn Lys Asp Thr Val Ile Ile Val Ser Glu Pro Ser Glu Asp Glu 100 105 110 Glu Ser Gln Gly Leu Pro Thr Met Ala Arg Arg Asn Asp Asp Ile Ser 120 Glu Leu Glu Asp Leu Ser Gly Met Glu Asp Leu Lys 130 135

<210> 1701 <211> 134 <212> PRT <213> Homo sapiens

Met Phe Gly Ile Val Val Met Val Ile Glu Thr Glu Leu Ser Trp Gly 35 40 Ala Tyr Tyr Lys Ala Pro Leu Tyr Ser Leu Ala Leu Lys Cys Leu Ile 55 Ser Leu Phe Thr Ile Ile Leu Leu Gly Leu Thr Ile Val Tyr His Ala 7 70 75 Arg Glu Ile Gln Leu Phe Met Ala Asn Tyr Gly Ala Asp Asp Trp Arg 85 90 Ser Ala Leu Thr Tyr Glu Pro Ile Phe Leu Ile Leu Leu Glu Ala Leu 100 105 Arg Gly Val Ile His Ala Thr Pro Cys Arg Val Ser Leu Ser Leu Trp 115 120 Asp Gly Leu Asp Leu Pro 130 134

<210> 1702 <211> 113 <212> PRT

<213> Homo sapiens

<400> 1702 Ala Gln Leu Ala Glu Val Cys Pro Pro Gln Thr Leu Leu Thr Thr Asn 5 Thr Ser Ser Ile Ser Ile Thr Ala Ile Ala Ala Glu Ile Lys Asn Pro 25 Glu Arg Val Ala Gly Leu Eis Phe Phe Asn Pro Ala Pro Val Met Lys 40 35 45 Leu Val Glu Val Val Ser Gly Leu Ala Thr Ala Ala Glu Val Val Glu 50 . 55 60 Gln Leu Cys Glu Leu Thr Leu Ser Trp Gly Lys Gln Pro Val Arg Cys 70 75 His Ser Thr Pro Gly Phe Ile Val Asn Arg Val Ala Arg Pro Tyr Tyr 85 90 Ser Glu Ala Trp Arg Ala Leu Glu Glu Gln Val Ala Ala Pro Glu Val Ile 113

<210> 1703 <211> 62 <212> PRT <213> Homo sapiens

<210> 1704 <211> 47 <212> PRT

## <213> Homo sapiens

<210> 1705 <211> 252 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(246) <223> Xaa = any amino acid or nothing

<400> 1705 Val Ile Asn Leu Val Tyr Leu Ile Ser Ser Pro Arg Pro Glu Leu Lys 1 5 10 Pro Val Asp Lys Glu Ser Glu Val Val Met Lys Phe Pro Asp Gly Phe 20 Glu Lys Phe Ser Pro Pro Ile Leu Gln Leu Asp Glu Val Asp Phe Tyr 40 Tyr Asp Pro Lys His Val Ile Phe Ser Arg Leu Ser Val Ser Ala Asp 55 Leu Glu Ser Arg Ile Cys Val Val Gly Glu Asn Gly Ala Gly Lys Ser 65 70 75 80 Thr Met Leu Lys Leu Leu Gly Asp Leu Ala Pro Val Arg Gly Ile 85 90 95 Arg His Ala His Arg Asn Leu Lys Ile Gly Tyr Phe Ser Gln His His 105 Val Gly Ala Ala Gly Thr Kaa Thr Phe Ser Ala Cys Gly Asn Leu Leu 115 120 Gly Thr Gln Val Phe Leu Gly Arg Pro Glu Glu Glu Tyr Arg His Gln 135 Leu Gly Phe Gly Met Gly Ile Ser Gly Glu Leu Gly His Ala Ser Ser 150 155 Leu Pro Ala Cys Leu Gly Gly Gln Lys Glu Ala Glu Val Ala Phe Cys 165 170 175 Ser Asp Gly Leu Leu Pro Cys Pro Asn Phe Leu Ile Leu Asp Glu Pro 180 185 190 Thr Asn His Leu Gly His Gly Arg Ala Ile Glu Ala Leu Gly Pro Cys 200 Leu Gln Thr Ile Ser Gly Val Gly Val Ile Leu Val Ser His Glu Xaa 210 . 215 220 Ser Ala Leu Ser Arg Leu Val Cys Arg Glu Leu Trp Val Cys Xaa Gly 225 230 235 Arg Ser Thr Ser Pro Phe

<210> 1706 <211> 110 <212> PRT <213> Homo sapiens

<400> 1706 Arg Gly Gly Arg Asp Trp Gly Glu His Asn Gln Arg Leu Glu Glu His 10 Gln Ala Arg Ala Trp Gln Gly Ala Met Asp Ala Gly Ala Ala Ser Arg 20 25 Glu His Ala Arg Trp Gln Gly Thr Gly Leu Ala Pro Gly Thr Arg Val 40 35 Ala Val Ala Pro Thr Cys Val Gln Gly Leu Pro Gln Glu Arg Ser Val 60 55 Cys Arg Pro Phe Phe Ser Ser Arg Trp Arg Glu Gly Pro Val Trp Ala Leu Gly Ala Gly Ala His Gly Lys Pro Arg Trp Ser Gly Gly Val Arg 90 85 Cys Val Val Arg Gly Gly Arg Trp Phe Thr Pro Ala Pro His 105

<210> 1707 <211> 340 <212> PRT <213> Homo sapiens

<400> 1707 Met Leu Glu Ala Pro Gly Pro Ser Asp Gly Cys Glu Leu Ser Asn Pro 10 Ser Ala Ser Arg Val Ser Cys Ala Gly Gln Met Leu Glu Val Gln Pro Gly Leu Tyr Phe Gly Gly Ala Ala Ala Val Ala Glu Pro Asp His Leu 35 .40 Arg Glu Ala Gly Ile Thr Ala Val Leu Thr Val Asp Ser Glu Glu Pro 55 60 Ser Phe Lys Ala Gly Pro Gly Val Glu Asp Leu Trp Arg Leu Phe Val 65 70 75 80 70 Pro Ala Leu Asp Lys Pro Glu Thr Asp Leu Leu Ser His Leu Asp Arg 85 90 Cys Val Ala Phe Ile Gly Gln Ala Arg Ala Glu Gly Arg Ala Val Leu 105 Val His Cys His Ala Gly Val Ser Arg Ser Val Ala Ile Ile Thr Ala 125 115 120 Phe Leu Met Lys Thr Asp Gln Leu Pro Phe Glu Lys Ala Tyr Glu Lys 135 140 Leu Gln Ile Leu Lys Pro Glu Ala Lys Met Asn Glu Gly Phe Glu Trp 155 150 Gln Leu Lys Leu Tyr Gln Ala Met Gly Tyr Glu Val Asp Thr Ser Ser 165 170 175 Ala Ile Tyr Lys Gln Tyr Arg Leu Gln Lys Val Thr Glu Lys Tyr Pro 180 185 Glu Leu Gln Asn Leu Pro Gln Glu Leu Phe Ala Val Asp Pro Thr Thr 200 205 195 Val Ser Gln Gly Leu Lys Asp Glu Val Leu Tyr Lys Cys Arg Lys Cys 210 215 220 215 Arg Arg Ser Leu Phe Arg Ser Ser Ser Ile Leu Asp His Arg Glu Gly 225 230 235 Ser Gly Pro Ile Ala Phe Ala His Lys Arg Met Thr Pro Ser Ser Met 245 250 255 Leu Thr Thr Gly Arg Gln Ala Gln Cys Thr Ser Tyr Phe Ile Glu Pro 260 265 Val Gln Trp Met Glu Ser Ala Leu Leu Gly Val Met Asp Gly Gln Leu 275 280 285 275 280 Leu Cys Pro Lys Cys Ser Ala Lys Leu Gly Ser Phe Asn Trp Tyr Gly 295 300

Glu Gln Cys Ser Cys Gly Arg Trp Ile Thr Pro Ala Phe Gln Ile His 305 310 315 320

Lys Asn Arg Val Asp Glu Met Lys Ile Leu Pro Val Leu Gly Ser Gln 325 330 335

Thr Gly Lys Ile 340

<210> 1708 <211> 229 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(225) <223> Xaa = any amino acid or nothing

<400> 1708 Glu Val Glu Thr Leu Gly Pro Arg Thr Pro Gly Pro Glu Ala Gln Ser 10 Pro Thr Pro Gly Ser Cys Pro Gly Trp Gln Glu Pro Ser Pro Gly Pro 20 25 Thr Pro Pro Pro Xaa Leu Ser Gly Pro Gly Pro Gln Gly Ala Pro Val 35 40 Leu Gly Lys Leu Leu Pro Asp Pro Glu Glu Thr Pro Ala Gly Lys Thr 55 Pro Leu Gly Lys His Phe Trp Trp Gly Leu Pro Val Thr Ser Ala Asn 70 75 Phe Ser Pro Gly Ala Ala Ala Xaa Phe Gly Gly Ala Leu Ser Pro Pro 85 90 Gly Gly Asp Leu Gly His Met Leu Leu Gln Gly Pro Pro Ser Pro Phe 100 105 Arg Leu Gln Gln Kaa Gln Thr Pro Pro Gly Ser His Ser Pro Pro 120 125 Thr Ala Asn Arg Glu Ile Asn Pro Gly Pro Ala Ala Ala Asp Thr 135 140 Arg Ser Cys Trp Gly His Lys Arg Ser Trp Arg Gly Trp Arg Gly Leu 145 150 155 Ala Pro Trp Arg Leu Gly Phe Gly Ser Pro Gly Ile Pro Kaa Pro Ala 165 170 175 Pro Ala Gly Ile Pro Gly Arg Pro Thr Trp Glu Gly Gly Lys Gly Ala 180 185 190 Gly Gly Lys Pro Ser Glu Thr Leu Thr Arg Ser Pro Pro Val Trp Arg 200 205 Gly Lys Arg Gly Ser Ala Asn Gly Phe Leu Ser Trp Val Gln Ile Leu 215 220 Gln 225

<210> 1709
<211> 88
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(87)
<223> Xaa = any amino acid or nothing

<400> 1709

His Glu His Leu Leu Leu Leu Leu Cys Val Phe Leu Val Lys Ser 10 Gln Gly Val Asn Asp Asn Glu Glu Gly Phe Phe Ser Ala Arg Gly His 25 20 Arg Pro Leu Asp Lys Lys Arg Glu Asp Ala Pro Asn Leu Arg Pro Ala 45 40 Leu Ala Asp Ile Thr Val Cys Asp Tyr Arg Ala Gln Ile Ala Xaa Ala 55 60 Ala Ser Thr Pro Lys Arg Ala Ala Ser Ile Ala His Asn Ala Val Ser 65 70 Cys Arg Xaa Ala Gln Ile Ala 85 87

<210> 1710 <211> 96 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(95) <223> Kaa = any amino acid or nothing

<400> 1710 Arg Glu Pro Pro Arg Pro Ala Leu Leu Phe Phe Xaa Asp Arg Val Ser 5 10 Leu Cys Cys Pro Gly Trp Asn Ala Val Val Gln Ser Gln Leu Thr Ala 20 25 30 Ala Pro Thr Ser Gln Val Gln Ser Asp Ser Pro Thr Phe Pro Ser Ser 40 45 Trp Asp Tyr Arg His Val Pro Glu Tyr Pro Ala Asn Phe Leu Xaa Arg 55 Gln Gly Phe Pro Met Leu Pro Arg Leu Val Ser Asn Ser Trp Ala Gln 70 75 Thr Val His Pro Pro Arg Pro Pro Lys Val Leu Asp Leu Gln Ala 90 85

<210> 1711
<211> 476
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(467)
<223> Xaa = any amino acid or nothing

<400> 1711 Pro Val Pro Ala Pro Arg Val Ser Pro Ser Ala Arg Gly Ala Pro Gly 1 7.0 Arg Pro Arg Leu Pro Gly Val Arg Gly Pro Arg His Ser Trp Ala Ala 20 25 Asp Kaa Arg Gly Ser Arg Met Pro Pro Arg Ala Pro Ala Pro Ser Pro 35 40 Thr Gly Pro Ala Pro Gly Gly Lys Lys Val Arg Gly Arg Val Pro Glu 60 55 Asp Pro Asp Ala Tyr Glu Pro Arg Cys Ser Ala Leu Xaa Val Xaa Pro 70 75 Thr His Val Thr Ser Pro Gln Phe Cys Asp Pro Xaa Asn Gly Gln Ile 90

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Arg Ser Tyr Phe Thr Val Leu Leu Arg Gly Leu Asn Glu Thr Met Leu
          100
                             105
                                              110
Val Lys Pro Leu Cys Arg Arg Glu Pro Pro Glu Ala Gly Pro Gly Arg
                                            125
                         120
Gln Ser Thr Pro Ala Val Thr Arg Asp His Arg Gln His Glu Asp Pro
  130
                     135
                                        140
Arg Gly Ala Gly Arg Gln Trp Asp Ala Asp Pro Arg Pro Ser Ala Pro
                 150
                                   155
Pro Ala Glu Val Ala Thr Gly Ser Arg Pro Gly Arg His Met Trp Met
              165
                                 170
                                                   175
Arg Leu Cys Leu Ala Ala Gln Gln Ala Pro Gly Leu Pro His Arg Thr
                            185
          180
Ser Ile Arg Pro Gly Trp Arg Arg Leu Thr Glu Pro Glu Ala Trp Ala
                        200
  . 195
                                 205
Arg Arg His Arg Arg Pro Trp Gly Gln Arg Gly Ala Val Arg Pro Pro
                   215
                                        220
Pro Gln Gly Ala Ala Pro Pro Pro Ser His Gln Gly Arg Arg Thr Asn
225
                230
                                  235
Thr Asp Pro Ser Ala Thr Pro Arg Leu Thr Val Met Ser Arg Cys Leu
              245
                                250
                                                   255
Ala Pro Asp Leu Lys Ala Pro Ala Ser Gly Pro Arg Gly Trp Arg Arg
          260
                             265
                                                270
Gly Met Pro Gln Ser Ser Gly Ala Leu Leu Trp Thr Pro Pro Pro Thr
                                           285
                         280
      275
Pro Arg Gly Ser His Ser Pro Arg Pro Arg Glu Ala Pro Leu Arg Ala
                                       300
                  295
Ile His Pro Ala Gly Pro Ser Lys Ser Arg Ala Gly Ala Ser Gly Arg
                  310
                                    315
Leu Pro Glu Val Ile Tyr Gly Trp Val Thr Leu Phe Thr Pro Pro Glu
                               330
             325
Ala Gly Thr Phe Leu Ile Pro Ser Pro Thr Xaa Met Ser Pro Ala Leu
                           345
                                               350
       . 340
Val Ile Gln Pro Pro Val Pro Pro Thr Gln Met Gly Leu Arg Ile Ser
       355
                        360
                                            365
Gly Leu Pro Arg Gln Gly Xaa Pro Ser Gly Ala Pro Trp Xaa Leu Pro
                     375
                                       380
Gly Leu Ala Gln Leu Ala Phe Gln Cys His Leu Pro His Asp Glu Val
385
                 390
                                    395
Gly Pro Pro Arg Asn Gln Ser Pro Leu Gly Asn Asp Thr Leu Ser Ser
               405
                               410
Gly Leu Pro Met Gly Pro Arg Arg Gln Val Trp Pro Leu Ala Arg Val
                            425
                                               430
Gly Gly His Ser Ser Pro Arg Glu Pro Gln Val Leu Lys Lys Pro Leu
                         440
                                           445
      435
Trp Gly Gln Thr Asp Ile Ala Gly Val Gly Ser Ala Ser Leu Tyr Pro
            455
                                       460
  450
Asp Asn Leu
465 467
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<210> 1712
<211> 333
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<212> PRT

<213> Homo sapiens

<221> misc_feature <222> (1)...(332)

<223> Xaa = any amino acid or nothing

<400> 1712
Arg Val Gly Met Val Leu Gly Thr Arg Glu Val Gly Asp Ser Thr Pro
1 5 10 15

Pro Pro Ser Pro Pro Leu Tyr Pro Phe Thr Gly Asn Glu Phe Val Gln 20 25 His Asn Thr Trp Gln Leu Ser Arg Val Tyr Pro Ser Asp Leu Arg Thr 40 Asp Ser Ser Asn Tyr Asn Pro Gln Glu Leu Trp Asn Ala Gly Cys Gln 55 60 Met Val Xaa Gly Gly Ser Arg Asp Trp Glu Glu Gly Val Glu Glu Gln 70 75 Gln Val Gly Asn Lys Phe Ser Ser Asp Gly Arg Val Gly Glu Cys Ser 85 90 95 Arg Lys Leu Geu Gly Xaa Glu Met Leu Ser Val Asp Ile Thr Ser Arg 105 Tyr Arg Ala Pro Ser Thr Tyr Leu Leu Asn Ser Leu Lys Glu Gly Leu 120 125 Glu Gly Leu His Gly Glu Ser Cys Ser Ser Phe Leu Leu Gly Pro Ser 130 135 140 Val Ala Met Asn Met Gln Thr Ala Gly Leu Glu Met Asp Ile Cys Asp 150 155 Gly His Phe Arg Gln Asn Gly Gly Cys Gly Tyr Val Leu Lys Pro Asp 165 170 Phe Leu Arg Asp Ile Gln Ser Ser Phe His Pro Glu Lys Pro Ile Ser 180 185 190 Pro Phe Lys Ala Gln Thr Leu Leu Asn Gln Val Ile Ser Val Gln Gln 195 200 205 Leu Pro Lys Val Asp Lys Thr Lys Glu Gly Ser Ile Val Asp Pro Leu 215 220 Val Lys Val Gln Ile Phe Gly Val Arg Leu Asp Thr Ala Arg Gln Glu 230 235 Thr Asn Tyr Val Glu Asn Asn Gly Phe Asn Pro Tyr Trp Gly Gln Thr 245 250 Leu Cys Phe Arg Val Leu Gly Pro Asp Phe Pro Met Leu Arg Phe Gly 260 265 270 Lys Met Asp Tyr Asp Trp Lys Ser Arg Asn Asp Leu Leu Gly Lys Thr 275 280 285 Pro Cys Pro Gly Thr Cys Met Gln Gln Gly Tyr Arg His Ile His Leu 295 300 Leu Ser Lys Asp Gly Ile Ser Leu Arg Pro Ala Ser Ile Phe Val Tyr 310 315 Ile Cys Ile Gln Glu Gly Leu Glu Gly Asp Glu Ser

<210> 1713 <211> 63 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(63)

<223> Xaa = any amino acid or nothing

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<210> 1714

<211> 120

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(120)

<223> Xaa = any amino acid or nothing
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<400> 1714 Ser Ala Phe Lys Thr Leu Gln Leu Pro Ala Phe Ser Leu Tyr Phe Asp 15 Leu Gly Ser Leu Lys Leu Leu Ile Leu Arg Ile His Thr Ser Ile Val 25 20 Lys Asn His Lys Val Glu Ser Pro Arg Thr Met Ser Pro Gly Xaa Asp 35 40 Pro Gln Ser Phe Leu Gln Ile Pro Gln Pro Arg Pro Pro Gln Leu Arg 55 Val Gly Leu Thr Ser Gly Leu Ile Gln His Phe His Ser Pro Ser Ser 70 75 Cys Gln Phe Pro Leu Leu Arg Gly Pro Pro Phe Pro Arg Gln Pro Pro 90 85 Leu Gly Ile Ser Gly Ala Ser Leu Cys Pro Val Leu Ser Pro Pro Arg 100 105 Xaa Pro Leu Gln Pro Ser Ser Leu 115 120

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<210> 1715
<211> 99
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(96)
<223> Kaa = any amino acid or nothing
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<400> 1715 Leu Leu Pro Tyr Pro Ser Leu Phe Val Phe Leu Arg Gln Cys His Phe 1 5 10 Val Thr Arg Leu Glu Cys Asn Gly Val Val Ser Ala His Cys Asn Leu 20 25 30 His Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Xaa Val Ala 40 Gly Thr Thr Gly Val Cys His His Thr Arg Leu Ile Phe Val Phe Leu 55 60 Val Xaa Thr Gly Phe His Tyr Val Ala Gln Ala Gly Leu Glu Leu Leu 70 75 Thr Ala Xaa Ser Pro Pro Gln Leu Pro Lys Val Val Gly Leu Gln Ala 90

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<210> 1716
<211> 83
<212> PRT
<213> Homo sapiens
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<400> 1716 Val Gly Glu Lys Leu His Asp Ile Arg Phe Gly Asn Asp Phe Asp Met 5 10 Thr Pro Lys Ala Gln Ala Thr Lys Glu Lys Ile Asp Lys Leu Asn Phe 20 25 Ile Lys Ile Lys Lys Leu Cys Ile Glu Gly Tyr Tyr Asn Arg Glu Pro 35 40 Gln Asn Gly Arg Lys Ile Phe Ala Asn Tyr Val Ser Asp Lys Gly Leu 55 60 Met Ala Thr Ile Tyr Glu Glu Leu Leu Lys Leu Ser Asn Lys Leu Ile 65 70 Gln81

<210> 1717 <211> 791 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(789) <223> Xaa = any amino acid or nothing

<400> 1717 Gln Lys Leu Lys Gln Asn Gln Pro Lys Arg Ala His Val Glu Asp Gly 5 10 Gly Ser Arg Ser Lys Gln Gly Asn Glu Gln Ser Lys Lys Thr Pro Ile 20 25 30 Glu Lys Ser Asp Phe Ala Ala Ala Thr His Pro Arg Ala Phe Tyr Leu 35 40 Ser Lys Pro Asp Glu Thr Pro Asn Ala Trp Met Ser Asp Ser Gly Thr 55 60 Gly Leu Thr Tyr Trp Lys Leu Glu Glu Lys Asp Met His His Ser Leu 70 75 Pro Glu Thr Leu Glu Lys Thr Phe Ile Ser Leu Ser Ser Thr Asp Val 85 ' 90 Ser Pro Asn Gln Val Leu Thr Leu Asp Pro Thr Leu His Met Lys Pro 100 105 Lys Gln Gln Ile Ser Gly Ile Gln Pro His Gly Leu Pro Asn Ala Leu 115 120 125 Asp Asp Arg Ile Ser Phe Ser Pro Asp Ser Val Leu Glu Pro Ser Met 135 140 Ser Ser Pro Ser Asp Ile Asp Ser Phe Ser Gln Ala Ser Asn Val Thr 150 155 160 Ser Gln Leu Pro Gly Phe Pro Lys Tyr Pro Ser His Thr Lys Ala Ser 165 170 Pro Val Asp Ser Trp Lys Asn Gln Thr Phe Gln Asn Glu Ser Arg Thr 180 185 Ser Ser Thr Phe Pro Ser Val Tyr Thr Ile Thr Ser Asn Asp Ile Ser 200 205 Val Asn Thr Val Asp Glu Glu Asn Thr Val Met Val Ala Ser Ala Ser 210 215 220 Val Ser Gln Ser Gln Leu Pro Gly Thr Ala Asn Ser Val Pro Glu Cys 230 235 Ile Ser Leu Thr Ser Leu Glu Asp Pro Val Ile Leu Ser Lys Ile Arg 245 250 Gln Asn Leu Lys Glu Lys His Ala Arg His Ile Ala Asp Leu Arg Ala 260 265 270 Tyr Tyr Glu Ser Glu Ile Asn Ser Leu Lys Gln Lys Leu Glu Ala Lys

280

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Glu Ile Ser Gly Val Glu Asp Trp Lys Ile Thr Asn Gln Ile Leu Val
                      295
                                         300
Asp Arg Cys Gly Gln Leu Asp Ser Ala Leu His Glu Ala Thr Ser Arg
                  310
                              315
Val Arg Thr Leu Glu Asn Lys Asn Asn Leu Leu Glu Ile Glu Val Asn
               325
                                 330
Asp Leu Arg Glu Arg Phe Ser Ala Ala Ser Ser Ala Ser Lys Ile Leu
                            345
           340
Gln Glu Arg Ile Glu Glu Met Arg Thr Ser Ser Lys Glu Lys Asp Asn
                          360.
                                            365
Thr Ile Ile Arg Leu Lys Ser Arg Leu Gln Asp Leu Glu Glu Ala Phe
                      375
Glu Asn Ala Tyr Lys Leu Ser Asp Asp Lys Glu Ala Gln Leu Lys Gln
                 390
                                    395
Glu Asn Lys Met Phe Gln Asp Leu Leu Gly Glu Tyr Glu Ser Leu Gly
                               410
Lys Glu His Arg Arg Val Lys Asp Ala Leu Asn Thr Thr Glu Asn Lys
                             425
          420
Leu Leu Asp Ala Tyr Thr Gln Ile Ser Asp Leu Lys Arg Met Ile Ser
                          440
Lys Leu Glu Ala Gln Val Lys Gln Val Glu His Glu Asn Met Leu Ser
                      455
                                         460
Leu Arg His Asn Ser Arg Ile His Val Arg Pro Ser Arg Ala Asn Thr
                  470
                                      475
Leu Ala Thr Ser Asp Val Ser Arg Arg Lys Trp Leu Ile Pro Gly Ala
              485
                                 490
Glu Tyr Ser Ile Phe Thr Gly Gln Pro Leu Asp Thr Gln Asp Ser Asn
           500
                             505
Val Asp Asn Gln Leu Glu Glu Thr Cys Ser Leu Gly His Arg Ser Pro
                          520
Leu Glu Lys Asp Ser Ser Pro Gly Ser Ser Ser Thr Ser Leu Leu Ile
                      535
                                         540
Lys Lys Gln Arg Glu Thr Ser Asp Thr Pro Ile Met Arg Ala Leu Lys
                 550
                                    555
Glu Leu Asp Glu Gly Lys Ile Phe Lys Asn Trp Gly Thr Gln Thr Glu
              565
                                 570
Lys Glu Asp Thr Ser Asn Ser Leu Leu Xaa Ile Asn Pro Arg Gln Thr
                      585
Glu Thr Ser Val Asn Ala Ser Arg Ser Pro Glu Lys Cys Ala Gln Gln
                                    605
                         600
Arg Gln Lys Arg Leu Asn Ser Ala Ser Gln Arg Ser Ser Ser Leu Pro
           615 620
Pro Ser Asn Arg Lys Ser Ser Thr Pro Thr Lys Arg Glu Ile Met Leu
                  630
                                     635
Thr Pro Val Thr Val Ala Tyr Ser Pro Lys Arg Ser Pro Lys Glu Asn
               645
                                  650
Leu Ser Pro Gly Phe Ser His Leu Leu Ser Lys Asn Glu Ser Ser Pro
          660
                             665
Ile Arg Glu Lys Thr Tyr Ser Glu Lys Ala Thr Asp Asn His Val Asn
       675
                          680
                                             685
His Ser Ser Cys Pro Glu Pro Val Pro Asn Gly Val Lys Lys Val Ser
                       695
Val Arg Thr Ala Trp Glu Lys Asn Lys Ser Val Ser Tyr Glu Gln Cys
                   710
                                      715
Lys Pro Val Ser Val Thr Pro Gln Gly Asn Asp Phe Glu Tyr Thr Ala
               725
                                  730
Lys Ile Arg Thr Leu Ala Glu Thr Glu Arg Phe Phe Asp Glu Leu Thr
                              745
Lys Glu Lys Asp Gln Ile Glu Ala Ala Leu Ser Arg Met Pro Ser Pro
                          760
                                             765
Gly Gly Arg Ile Thr Leu Gln Thr Arg Leu Asn Gln Val Lys Cys Leu
                       775
Ser Leu Asn Leu Leu
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<210> 1718 <211> 782 <212> PRT <213> Homo sapiens

<400> 1718 Glu Phe Lys Ser Gly Gly Cys Gly Ala Gly Leu Val Ala Ala Gly Ala Val Leu Val Leu Tyr Pro Ala Ser Arg Ala Gly Glu Arg Thr Arg Val Pro Gly Ser Pro Ala Pro Ser Ser Leu Pro Leu His Ser Pro Gly Ala Cys Gly Thr Glu Val Asp Met Asp Pro Gln Arg Ser Pro Leu Leu Glu Val Lys Gly Asn Ile Glu Leu Lys Arg Pro Leu Ile Lys Ala Pro Ser Gln Leu Pro Leu Ser Gly Ser Arg Leu Lys Arg Arg Pro Asp Gln Met 85 90 Glu Asp Gly Leu Glu Pro Glu Lys Lys Arg Thr Arg Gly Leu Gly Ala Thr Thr Lys Ile Thr Thr Ser His Pro Arg Val Pro Ser Leu Thr Thr Val Pro Gln Thr Gln Gly Gln Thr Thr Ala Gln Lys Val Ser Lys Lys Thr Gly Pro Arg Cys Ser Thr Ala Ile Ala Thr Gly Leu Lys Asn Gln Lys Pro Val Pro Ala Val Pro Val Gln Lys Ser Gly Thr Ser Gly Val Pro Pro Met Ala Gly Gly Lys Lys Pro Ser Lys Arg Pro Ala Trp Asp Leu Lys Gly Gln Leu Cys Asp Leu Asn Ala Glu Leu Lys Arg Cys Arg Glu Arg Thr Gln Thr Leu Asp Gln Glu Asn Gln Gln Leu Gln Asp Gln Leu Arg Asp Ala Gln Gln Gln Val Lys Ala Leu Gly Thr Glu Arg Thr Thr Leu Glu Gly His Leu Ala Lys Val Gln Ala Gln Ala Glu Gln Gly Gln Gln Glu Leu Lys Asn Leu Arg Ala Cys Val Leu Glu Leu Glu Glu 260 265 270 Arg Leu Ser Thr Gln Glu Gly Leu Val Gln Glu Leu Gln Lys Lys Gln Val Glu Leu Gln Glu Glu Arg Arg Gly Leu Met Ser Gln Leu Glu Glu Lys Glu Arg Arg Leu Gln Thr Ser Glu Ala Ala Leu Ser Ser Gln Ala Glu Val Ala Ser Leu Arg Gln Glu Thr Val Ala Gln Ala Ala Leu Leu Thr Glu Arg Glu Glu Arg Leu His Gly Leu Glu Met Glu Arg Arg Arg Leu His Asn Gln Leu Gln Glu Leu Lys Gly Asn Ile Arg Val Phe Cys Arg Val Arg Pro Val Leu Pro Gly Glu Pro Thr Pro Pro Pro Gly Leu Leu Leu Phe Pro Ser Gly Pro Gly Gly Pro Ser Asp Pro Pro Thr Arg Leu Ser Leu Ser Arg Ser Asp Glu Arg Arg Gly Thr Leu Ser Gly Ala Pro Ala Pro Pro Thr Arg His Asp Phe Ser Phe Asp Arg Val Phe 

Pro Pro Gly Ser Gly Gln Asp Glu Val Phe Glu Glu Ile Ala Met Leu 435 440 Val Gln Ser Ala Leu Asp Gly Tyr Pro Val Cys Ile Phe Ala Tyr Gly 455 460 Gln Thr Gly Ser Gly Lys Thr Phe Thr Met Glu Gly Gly Pro Gly Gly 470 475 Asp Pro Gln Leu Glu Gly Leu Ile Pro Arg Ala Leu Arg His Leu Phe 485 490 Ser Val Ala Gln Glu Leu Ser Gly Gln Gly Trp Thr Tyr Ser Phe Val 500 505 Ala Ser Tyr Val Glu Ile Tyr Asn Glu Thr Val Arg Asp Leu Leu Ala 515 520 525 Thr Gly Thr Arg Lys Gly Gln Gly Gly Glu Cys Glu Ile Arg Arg Ala 535 Gly Pro Gly Ser Glu Glu Leu Thr Val Thr Asn Ala Arg Tyr Val Pro 550 555 Val Ser Cys Glu Lys Glu Val Asp Ala Leu Leu His Leu Ala Arg Gln 570 56*5* 575 · Asn Arg Ala Val Ala Arg Thr Ala Gln Asn Glu Arg Ser Ser Arg Ser 580 585 His Ser Val Phe Gln Leu Gln Ile Ser Gly Glu His Ser Ser Arg Gly 595 600 605 Leu Gln Cys Gly Ala Pro Leu Ser Leu Val Asp Leu Ala Gly Ser Glu 615 620 Arg Leu Asp Pro Gly Leu Ala Leu Gly Pro Gly Glu Arg Glu Arg Leu 630 635 Arg Glu Thr Gln Ala Ile Asn Ser Ser Leu Ser Thr Leu Gly Leu Val 645 650 Ile Met Ala Leu Ser Asn Lys Glu Ser His Val Pro Tyr Arg Asn Ser 670 660 665 Lys Leu Thr Tyr Leu Leu Gln Asn Ser Leu Gly Gly Ser Ala Lys Met 675 680 685 Leu Met Phe Val Asn Ile Ser Pro Leu Glu Glu Asn Val Ser Glu Ser 695 Leu Asn Ser Leu Arg Phe Ala Ser Lys Val Glu Pro Ser Val Leu Phe 710 715 Gly Thr Ala Gln Ser Asn Arg Lys Trp Lys Thr Asp Pro Asp Leu Cys 730 725 Val Cys 740 745 Val Pro Met Ser Met Tyr Arg Val Arg Gly Gly Arg Val Ala Gly Gly 760 765 Cys Phe Ile Gly Trp Arg Ala Pro Cys Pro Arg Ala Ile Lys 770 775 780

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<210> 1719
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<400> 1719

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<211> 120

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<222> (1) ... (119)

<223> Xaa = any amino acid or nothing

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85 90 95 Arg Val His Val Pro Leu Gly Ala Ala Ala Thr Val Pro Val His Arg 100 Ser His Phe Pro Arg 115 117

<210> 1721
<211> 89
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<223> Xaa = any amino acid or nothing

Arg Pro Gln Asn Leu Tyr Phe 85 87

<210> 1722
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<223> Xaa = any amino acid or nothing

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<210> 1723 <211> 4565 <212> PRT <213> Homo sapiens

<400> 1723 Arg Arg Glu Val Ala Gly Pro Glu Gly Lys Gly Leu Leu Leu Ala Ser 10 Ala His Thr Met Leu Thr Pro Pro Leu Leu Leu Leu Pro Leu Leu 20 25 30 Ser Ala Leu Val Ala Ala Ala Ile Asp Ala Pro Lys Thr Cys Ser Pro 35 40 Lys Gln Phe Ala Cys Arg Asp Gln Ile Thr Cys Ile Ser Lys Gly Trp 55 Arg Cys Asp Gly Glu Arg Asp Cys Pro Asp Gly Ser Asp Glu Ala Pro 70 Glu Ile Cys Pro Gln Ser Lys Ala Gln Arg Cys Gln Pro Asn Glu His 85 90 Asn Cys Leu Gly Thr Glu Leu Cys Val Pro Met Ser Arg Leu Cys Asn 105 110 Gly Val Gln Asp Cys Met Asp Gly Ser Asp Glu Gly Pro His Cys Arg 120 115 125 Glu Leu Gln Gly Asn Cys Ser Arg Leu Gly Cys Gln His His Cys Val 135 140 Pro Thr Leu Asp Gly Pro Thr Cys Tyr Cys Asn Ser Ser Phe Gln Leu 155 Gln Ala Asp Gly Lys Thr Cys Lys Asp Phe Asp Glu Cys Ser Val Tyr 170 175 165 Gly Thr Cys Ser Gln Leu Cys Thr Asn Thr Asp Gly Ser Phe Ile Cys 180 185

Gly Cys Val Glu Gly Tyr Leu Leu Gln Pro Asp Asn Arg Ser Cys Lys Ala Lys Asn Glu Pro Val Asp Arg Pro Pro Val Leu Leu Ile Ala Asn Ser Gln Asn Ile Leu Ala Thr Tyr Leu Ser Gly Ala Gln Val Ser Thr Ile Thr Pro Thr Ser Thr Arg Gln Thr Thr Ala Met Asp Phe Ser Tyr Ala Asn Glu Thr Val Cys Trp Val His Val Gly Asp Ser Ala Ala Gln Thr Gln Leu Lys Cys Ala Arg Met Pro Gly Leu Lys Gly Phe Val Asp . 280 Glu His Thr Ile Asn Ile Ser Leu Ser Leu His His Val Glu Gln Met Ala Ile Asp Trp Leu Thr Gly Asn Phe Tyr Phe Val Asp Asp Ile Asp Asp Arg Ile Phe Val Cys Asn Arg Asn Gly Asp Thr Cys Val Thr Leu Leu Asp Leu Glu Leu Tyr Asn Pro Lys Gly Ile Ala Leu Asp Pro Ala Met Gly Lys Val Phe Phe Thr Asp Tyr Gly Gln Ile Pro Lys Val Glu 355 360 365 Arg Cys Asp Met Asp Gly Gln Asn Arg Thr Lys Leu Val Asp Ser Lys Ile Val Phe Pro His Gly Ile Thr Leu Asp Leu Val Ser Arg Leu Val Tyr Trp Ala Asp Ala Tyr Leu Asp Tyr Ile Glu Val Val Asp Tyr Glu Gly Lys Gly Arg Gln Thr Ile Ile Gln Gly Ile Leu Ile Glu His Leu 420 · Tyr Gly Leu Thr Val Phe Glu Asn Tyr Leu Tyr Ala Thr Asn Ser Asp Asn Ala Asn Ala Gln Gln Lys Thr Ser Val Ile Arg Val Asn Arg Phe Asn Ser Thr Glu Tyr Gln Val Val Thr Arg Val Asp Lys Gly Gly Ala Leu His Ile Tyr His Gln Arg Arg Gln Pro Arg Val Arg Ser His Ala Cys Glu Asn Asp Gln Tyr Gly Lys Pro Gly Gly Cys Ser Asp Ile Cys Leu Leu Ala Asn Ser His Lys Ala Arg Thr Cys Arg Cys Arg Ser Gly
515 520 525 Phe Ser Leu Gly Ser Asp Gly Lys Ser Cys Lys Lys Pro Glu His Glu Leu Phe Leu Val Tyr Gly Lys Gly Arg Pro Gly Ile Ile Arg Gly Met Asp Met Gly Ala Lys Val Pro Asp Glu His Met Ile Pro Ile Glu Asn Leu Met Asn Pro Arg Ala Leu Asp Phe His Ala Glu Thr Gly Phe Ile Tyr Phe Ala Asp Thr Thr Ser Tyr Leu Ile Gly Arg Gln Lys Ile Asp Gly Thr Glu Arg Glu Thr Ile Leu Lys Asp Gly Ile His Asn Val Glu Gly Val Ala Val Asp Trp Met Gly Asp Asn Leu Tyr Trp Thr Asp Asp Gly Pro Lys Lys Thr Ile Ser Val Ala Arg Leu Glu Lys Ala Ala Gln Thr Arg Lys Thr Leu Ile Glu Gly Lys Met Thr His Pro Arg Ala Ile Val Val Asp Pro Leu Asn Gly Trp Met Tyr Trp Thr Asp Trp Glu Glu Asp Pro Lys Asp Ser Arg Arg Gly Arg Leu Glu Arg Ala Trp Met Asp 

Gly Ser His Arg Asp Ile Phe Val Thr Ser Lys Thr Val Leu Trp Pro 710 715 Asn Gly Leu Ser Leu Asp Ile Pro Ala Gly Arg Leu Tyr Trp Val Asp 730 Ala Phe Tyr Asp Arg Ile Glu Thr Ile Leu Leu Asn Gly Thr Asp Arg 745 740 Lys Ile Val Tyr Glu Gly Pro Glu Leu Asn His Ala Phe Gly Leu Cys 760 765 His His Gly Asn Tyr Leu Phe Trp Thr Glu Tyr Arg Ser Gly Ser Val 775 780 Tyr Arg Leu Glu Arg Gly Val Gly Gly Ala Pro Pro Thr Val Thr Leu 790 795 Leu Arg Ser Glu Arg Pro Pro Ile Phe Glu Ile Arg Met Tyr Asp Ala 805 810 Gln His Gln Gln Val Gly Ser Asn Lys Cys Arg Val Asn Asn Ala Gly 820 825 Cys Ser Ser Leu Cys Leu Ala Thr Pro Gly Ser Arg Gln Cys Ala Cys 840 845 835 Ala Glu Asp Gln Val Leu Asp Ala Asp Gly Val Thr Cys Leu Ala Asn 855 860 Pro Ser Tyr Val Pro Pro Pro Gln Cys Gln Pro Gly Glu Phe Ala Cys 870 875 Ala Asn Ser Arg Cys Ile Gln Glu Arg Trp Lys Cys Asp Gly Asp Asn 890 885 Asp Cys Leu Asp Asn Ser Asp Glu Ala Pro Ala Leu Cys His Gln His 900 905 910 Thr Cys Pro Ser Asp Arg Phe Lys Cys Glu Asn Asn Arg Cys Ile Pro 920 925 Asn Arg Trp Leu Cys Asp Gly Asp Asn Asp Cys Gly Asn Ser Glu Asp 935 940 Glu Ser Asn Ala Thr Cys Ser Ala Arg Thr Cys Pro Pro Asn Gln Phe 950 955 Ser Cys Ala Ser Gly Arg Cys Ile Pro Ile Ser Trp Thr Cys Asp Leu 965 970 Asp Asp Asp Cys Gly Asp Arg Ser Asp Glu Ser Ala Ser Cys Ala Tyr 985 980 Pro Thr Cys Phe Pro Leu Thr Gln Phe Thr Cys Asn Asn Gly Arg Cys 995 1000 1005 Ile Asn Ile Asn Trp Arg Cys Asp Asn Asp Asn Asp Cys Gly Asp Asn 1020 1010 1015 Ser Asp Glu Ala Gly Cys Ser His Ser Cys Ser Ser Thr Gln Phe Lys 1040 1030 1035 Cys Asn Ser Gly Arg Cys Ile Pro Glu His Trp Thr Cys Asp Gly Asp 1045 1050 Asn Asp Cys Gly Asp Tyr Ser Asp Glu Thr His Ala Asn Cys Thr Asn 1060 1065 1070 Gln Ala Thr Arg Pro Pro Gly Gly Cys His Thr Asp Glu Phe Gln Cys 1080 1075 1085 Arg Leu Asp Gly Leu Cys Ile Pro Leu Arg Trp Arg Cys Asp Gly Asp 1100 1095 Thr Asp Cys Met Asp Ser Ser Asp Glu Lys Ser Cys Glu Gly Val Thr 1110 1115 His Val Cys Asp Pro Ser Val Lys Phe Gly Cys Lys Asp Ser Ala Arg 1125 1130 1135 Cys Ile Ser Lys Ala Trp Val Cys Asp Gly Asp Asn Asp Cys Glu Asp 1140 1145 1150 Asn Ser Asp Glu Glu Asn Cys Glu Ser Leu Ala Cys Arg Pro Pro Ser 1160 1165 His Pro Cys Ala Asn Asn Thr Ser Val Cys Leu Pro Pro Asp Lys Leu 1170 1175 1180 Cys Asp Gly Asn Asp Asp Cys Gly Asp Gly Ser Asp Glu Gly Glu Leu 1195 1190 Cys Asp Gln Cys Ser Leu Asn Asn Gly Gly Cys Ser His Asn Cys Ser 1210 1205

Val Ala Pro Gly Glu Gly Ile Val Cys Ser Cys Pro Leu Gly Met Glu 1230 1220 1225 Leu Gly Pro Asp Asn His Thr Cys Gln Ile Gln Ser Tyr Cys Ala Lys 1240 · 1245 1235 His Leu Lys Cys Ser Gln Lys Cys Asp Gln Asn Lys Phe Ser Val Lys 1255 1260 Cys Ser Cys Tyr Glu Gly Trp Val Leu Glu Pro Asp Gly Glu Ser Cys 1270 1275 1265 Arg Ser Leu Asp Pro Phe Lys Pro Phe Ile Ile Phe Ser Asn Arg His 1285 1290 1295 Glu Ile Arg Arg Ile Asp Leu His Lys Gly Asp Tyr Ser Val Leu Val 1300 1305 1310 Pro Gly Leu Arg Asn Thr Ile Ala Leu Asp Phe His Leu Ser Gln Ser 1315 1320 1325 Ala Leu Tyr Trp Thr Asp Val Val Glu Asp Lys Ile Tyr Arg Gly Lys 1330 1335 1340 Leu Leu Asp Asn Gly Ala Leu Thr Ser Phe Glu Val Val Ile Gln Tyr 1345 1350 1355 Gly Leu Ala Thr Pro Glu Gly Leu Ala Val Asp Trp Ile Ala Gly Asn 1365 1370 1375 Ile Tyr Trp Val Glu Ser Asn Leu Asp Gln Ile Glu Val Ala Lys Leu 1380 1385 1390 Asp Gly Thr Leu Arg Thr Thr Leu Leu Ala Gly Asp Ile Glu His Pro 1395 1400 1405 Arg Ala Ile Ala Leu Asp Pro Arg Asp Gly Ile Leu Phe Trp Thr Asp 1410 1415 1420 Trp Asp Ala Ser Leu Pro Arg Ile Glu Ala Ala Ser Met Ser Gly Ala 1430 1435 1425 Gly Arg Arg Thr Val His Arg Glu Thr Gly Ser Gly Gly Trp Pro Asn 1445 1450 1455 Gly Leu Thr Val Asp Tyr Leu Glu Lys Arg Ile Leu Trp Ile Asp Ala 1460 1465 1470 Arg Ser Asp Ala Ile Tyr Ser Ala Arg Tyr Asp Gly Ser Gly His Met 1475 1480 1485 Glu Val Leu Arg Gly His Glu Phe Leu Ser His Pro Phe Ala Val Thr 1490 1495 1500 Leu Tyr Gly Gly Glu Val Tyr Trp Thr Asp Trp Arg Thr Asn Thr Leu 1505 1510 1515 1520 Ala Lys Ala Asn Lys Trp Thr Gly His Asn Val Thr Val Val Gln Arg 1525 1530 1535 Thr Asn Thr Gln Pro Phe Asp Leu Gln Val Tyr His Pro Ser Arg Gln 1540 1545 1550 Pro Met Ala Pro Asn Pro Cys Glu Ala Asn Gly Gly Gln Gly Pro Cys 1560 1565 1555 Ser His Leu Cys Leu Ile Asn Tyr Asn Arg Thr Val Ser Cys Ala Cys 1570 1575 1580 Pro His Leu Met Lys Leu His Lys Asp Asn Thr Thr Cys Tyr Glu Phe 585 1590 1595 1600 Lys Lys Phe Leu Leu Tyr Ala Arg Gln Met Glu Ile Arg Gly Val Asp 1605 1610 1615 Leu Asp Ala Pro Tyr Tyr Asn Tyr Ile Ile Ser Phe Thr Val Pro Asp 1625 1630 Ile Asp Asn Val Thr Val Leu Asp Tyr Asp Ala Arg Glu Gln Arg Val 1635 1640 1645 Tyr Trp Ser Asp Val Arg Thr Gln Ala Ile Lys Arg Ala Phe Ile Asn 1650 1655 1660 Gly Thr Gly Val Glu Thr Val Val Ser Ala Asp Leu Pro Asn Ala His 1670 1675 1680 Gly Leu Ala Val Asp Trp Val Ser Arg Asn Leu Phe Trp Thr Ser Tyr 1685 1690 1695 Asp Thr Asn Lys Lys Gln Ile Asn Val Ala Arg Leu Asp Gly Ser Phe 1700 1705 1710 Lys Asn Ala Val Val Gln Gly Leu Glu Gln Pro His Gly Leu Val Val 1715 1720 1725

His Pro Leu Arg Gly Lys Leu Tyr Trp Thr Asp Gly Asp Asn Ile Ser 1735 1740 Met Ala Asn Met Asp Gly Ser Asn Arg Thr Leu Leu Phe Ser Gly Gln 1745 1750 1755 Lys Gly Pro Val Gly Leu Ala Ile Asp Phe Pro Glu Ser Lys Leu Tyr 1765 1770 1775 Trp Ile Ser Ser Gly Asn His Thr Ile Asn Arg Cys Asn Leu Asp Gly 1780 1785 1790 Ser Gly Leu Glu Val Ile Asp Ala Met Arg Ser Gln Leu Gly Lys Ala 1800 1795 1805 Thr Ala Leu Ala Ile Met Gly Asp Lys Leu Trp Trp Ala Asp Gln Val 1810 1815 1820 Ser Glu Lys Met Gly Thr Cys Ser Lys Ala Asp Gly Ser Gly Ser Val 1830 1835 Val Leu Arg Asn Ser Thr Thr Leu Val Met His Met Lys Val Tyr Asp 1845 1850 1855 Glu Ser Ile Gln Leu Asp His Lys Gly Thr Asn Pro Cys Ser Val Asn 1865 1870. 1860 Asn Gly Asp Cys Ser Gln Leu Cys Leu Pro Thr Ser Glu Thr Thr Arg 1880 1885 Ser Cys Met Cys Thr Ala Gly Tyr Ser Leu Arg Ser Gly Gln Gln Ala 1895 1900 1890 Cys Glu Gly Val Gly Ser Phe Leu Leu Tyr Ser Val His Glu Gly Ile 1910 1915 Arg Gly Ile Pro Leu Asp Pro Asn Asp Lys Ser Asp Ala Leu Val Pro 1925 1930 1935 Val Ser Gly Thr Ser Leu Ala Val Gly Ile Asp Phe His Ala Glu Asn 1940 1945 1950 Asp Thr Ile Tyr Trp Val Asp Met Gly Leu Ser Thr Ile Ser Arg Ala 1955 1960 1965 Lys Arg Asp Gln Thr Trp Arg Glu Asp Val Val Thr Asn Gly Ile Gly 1975 1980 Arg Val Glu Gly Ile Ala Val Asp Trp Ile Ala Gly Asn Ile Tyr Trp 1990 1995 Thr Asp Gln Gly Phe Asp Val Ile Glu Val Ala Arg Leu Asn Gly Ser 2005 2010 2015 Phe Arg Tyr Val Val Ile Ser Gln Gly Leu Asp Lys Pro Arg Ala Ile 2020 2025 2030 Thr Val His Pro Glu Lys Gly Tyr Leu Phe Trp Thr Glu Trp Gly Gln 2040 2045 Tyr Pro Arg Ile Glu Arg Ser Arg Leu Asp Gly Thr Glu Arg Val Val 2055 2060 Leu Val Asn Val Ser Ile Ser Trp Pro Asn Gly Ile Ser Val Asp Tyr 2065 2070 2075 2080 Gln Asp Gly Lys Leu Tyr Trp Cys Asp Ala Arg Thr Asp Lys Ile Glu 2085 2090 2095 Arg Ile Asp Leu Glu Thr Gly Glu Asn Arg Glu Val Val Leu Ser Ser 2110 2100 2105 Asn Asn Met Asp Met Phe Ser Val Ser Val Phe Glu Asp Phe Ile Tyr 2115 2120 2125 Trp Ser Asp Arg Thr His Ala Asn Gly Ser Ile Lys Arg Gly Ser Lys 2140 2135 Asp Asn Ala Thr Asp Ser Val Pro Leu Arg Thr Gly Ile Gly Val Gln 2150 2155 Leu Lys Asp Ile Lys Val Phe Asn Arg Asp Arg Gln Lys Gly Thr Asn 2165 2175 2170 Val Cys Ala Val Ala Asn Gly Gly Cys Gln Gln Leu Cys Leu Tyr Arg 2180 2185 2190 Gly Arg Gly Gln Arg Ala Cys Ala Cys Ala His Gly Met Leu Ala Glu 2200 Asp Gly Ala Ser Cys Arg Glu Tyr Ala Gly Tyr Leu Leu Tyr Ser Glu 2210 2215 2220 Arg Thr Ile Leu Lys Ser Ile His Leu Ser Asp Glu Arg Asn Leu Asn 2230 2235

Ala Pro Val Gln Pro Phe Glu Asp Pro Glu His Met Lys Asn Val Ile 2245 2250 2255 Ala Leu Ala Phe Asp Tyr Arg Ala Gly Thr Ser Pro Gly Thr Pro Asn 2260 2265 2270 Arg Ile Phe Phe Ser Asp Ile His Phe Gly Asn Ile Gln Gln Ile Asn 2275 2280 2285 Asp Asp Gly Ser Arg Arg Ile Thr Ile Val Glu Asn Val Gly Ser Val 2295 2300 Glu Gly Leu Ala Tyr His Arg Gly Trp Asp Thr Leu Tyr Trp Thr Ser 2305 2310 2315 2320 2305 Tyr Thr Thr Ser Thr Ile Thr Arg His Thr Val Asp Gln Thr Arg Pro 2325 2330 2335 Gly Ala Phe Glu Arg Glu Thr Val Ile Thr Met Ser Gly Asp Asp His 2340 2345 2350 Pro Arg Ala Phe Val Leu Asp Glu Cys Gln Asn Leu Met Phe Trp Thr 2355 2360 2365 Asn Trp Asn Glu Gln His Pro Ser Ile Met Arg Ala Ala Leu Ser Gly 2375 2380 Ala Asn Val Leu Thr Leu Ile Glu Lys Asp Ile Arg Thr Pro Asn Gly 2390 2395 2400 2385 Leu Ala Ile Asp His Arg Ala Glu Lys Leu Tyr Phe Ser Asp Ala Thr 2405 2410 2415 Leu Asp Lys Ile Glu Arg Cys Glu Tyr Asp Gly Ser His Arg Tyr Val 2420 2425 . 2430 Ile Leu Lys Ser Glu Pro Val His Pro Phe Gly Leu Ala Val Tyr Gly 2435 2440 2445 Glu His Ile Phe Trp Thr Asp Trp Val Arg Arg Ala Val Gln Arg Ala 2455 2460 Asn Lys His Val Gly Ser Asn Met Lys Leu Leu Arg Val Asp Ile Pro 2470 2475 Gln Gln Pro Met Gly Ile Ile Ala Val Ala Asn Asp Thr Asn Ser Cys 2485 2490 2495 Glu Leu Ser Pro Cys Arg Ile Asn Asn Gly Gly Cys Gln Asp Leu Cys 2500 2505 2510 Leu Leu Thr His Gln Gly His Val Asn Cys Ser Cys Arg Gly Gly Arg 2515 2520 2525 Ile Leu Gln Asp Asp Leu Thr Cys Arg Ala Val Asn Ser Ser Cys Arg 2530 2535 2540 Ala Gln Asp Glu Phe Glu Cys Ala Asn Gly Glu Cys Ile Asn Phe Ser 2545 2550 2555 2560 2545 Leu Thr Cys Asp Gly Val Pro His Cys Lys Asp Lys Ser Asp Glu Lys 2565 2570 2575 Pro Ser Tyr Cys Asn Ser Arg Arg Cys Lys Lys Thr Phe Arg Gln Cys 2580 2585 2590 Ser Asn Gly Arg Cys Val Ser Asn Met Leu Trp Cys Asn Gly Ala Asp 2595 2600 2605 Asp Cys Gly Asp Gly Ser Asp Glu Ile Pro Cys Asn Lys Thr Ala Cys 2610 2615 2620 Gly Val Gly Glu Phe Arg Cys Arg Asp Gly Thr Cys Ile Gly Asn Ser 2625 2630 2635 2640 Ser Arg Cys Asn Gln Phe Val Asp Cys Glu Asp Ala Ser Asp Glu Met 2645 2650 2655 Asn Cys Ser Ala Thr Asp Cys Ser Ser Tyr Phe Arg Leu Gly Val Lys 2660 2665 2670 Gly Val Leu Phe Gln Pro Cys Glu Arg Thr Ser Leu Cys Tyr Ala Pro 2675 2680 2685 Ser Trp Val Cys Asp Gly Ala Asn Asp Cys Gly Asp Tyr Ser Asp Glu 2695 2700 Arg Asp Cys Pro Gly Val Lys Arg Pro Arg Cys Pro Leu Asn Tyr Phe 2710 2715 Ala Cys Pro Ser Gly Arg Cys Ile Pro Met Ser Trp Thr Cys Asp Lys 2725 2730 2735 Glu Asp Asp Cys Glu His Gly Glu Asp Glu Thr His Cys Asn Lys Phe 2740 2745

		Glu 755	Ala	Gln	Phe		Cys 1760	Gln	Asn	His	Ar <del>g</del> 2	Cys 2765	Ile	Ser	Lys
Gln			Cys	Asp				Asp	Суз		Asp 780	Gly	Ser	Asp	Glu
Ala		His	Cys	Glu			Thr	Cys	Gly	_		Ser	Phe	Ser	Cys
2785				2	790				2	795				2	800
Pro	Gly	Thr			Суз	Val	Pro		Arg 2810	Trp	Leu	Cys	Asp	Gly 815	Asp
Lys :	Aen.	Cra		805 Asp	G) v	λla	Aso			Ile	Ala	Ala			Leu
_		2	820				2	825				2	1830		
Tyr .	asn	Ser	Thr	Cys	Asp			Glu	Phe	Met			Asn	Arg	Gln
<b>a</b> - ·		835	•	***	77 h.a		2840	7. ~~	Ti a	200		2845	Cvo	A1=	λen
Cys	820 116	PTO	гуѕ	HIS		855	Cys	Asp	UTR	жыр 2	860	æÞ	Cys	A.La	wab
Gly		Asp	Glu	Ser			Cys	Glu	Tyr	Pro	Thr	Cys	Gly	Pro	Ser
2865		_		2	870				2	2875				2	880
Glu	Phe	Arg			Asn	Gly	Arg			Ser	Ser	Arg	Gln	Trp 895	GLu
Cva	y a r	Glv		2885 Asn	Asp	Cvs	His		2890 Gln	Ser	Asp	Glu	Ala	-	Lys
_	_	2	2900				2	2905				- 2	2910		
Asn	Pro	His	Cys	Thr	ser			His	Lys	Cys			Ser	Ser	Gln
_1		2915		<b>~</b>	<b>~1</b>		2920	17-1	21-	G111		2925	T-011	Cue	λen
	ьеи 930	Cys	Ser	ser		ATY 2935	cys	vai	MIG		2940	Den	Leu	Cys	
		Asp	Asp	Cys			Ser	Ser	Asp	Glu	Arg	Gly	Cys	His	Ile
2945					2950				- 2	2955				2	960
Asn	Glu	Cys		Ser 2965	Arg	Lys	Leu	Ser.	GLY 2970	Cys	ser	GII	Asp	Cys 1975	GIU
Asp	Leu	Lvs			Phe	Lys	Суз			Arg	Pro	Gly	Phe		Leu
		:	2980				- 2	2985				:	2990		
Lys	_	_	Gly	Arg	Thr			qaA	Val	Asp		Cys 3005	Ser	Thr	Thr
Dhe		2995 SvS	Ser	Gln	Ara		3000 Ile	Asn	Thr	His			Tyr	Lys	Сув
3	010	-				3015					3020				
	Cys	Val	Glu			Ala	Pro	Arg			Asp	Pro	His		
3025	21-	1707	mh~		3030	Glu	Pro	Dhe		3035	Phe	Δla	Asn		3040 Tvr
nys	мла	val			Gru	GLU	110		200	~					-1-
TVT				3045					3050					3055	
-3-	Leu	Arg			Asn	Leu		Gly		Asn	Tyr		Leu	3055	Гув
_		;	Lys 3060	Leu			;	Gly 3065	Ser				Leu 3070	1055 Leu	
_	Gly	Leu	Lys 3060	Leu		Val	Ala	Gly 3065	Ser		Asp	Tyr	Leu	1055 Leu	
Gln	Gly	Leu 3075	Lys 3060 Asn	Leu Asn	Ala	Val	; Ala 3080	Gly 3065 Leu	Ser Asp	Phe	Asp	<b>Tyr</b> 3085	Leu 3070	Glu	Gln
Gln Met	Gly Ile	Leu 3075 Tyr	Lys 3060 Asn Trp	Leu Asn Thr	Ala Asp	Val Val 3095	Ala 3080 Thr	Gly 3065 Leu Thr	Ser Asp Gln	Phe Gly	Asp Ser	Tyr 3085 Met	Leu 3070 Arg Ile	Glu Arg	Gln Arg
Gln Met Met	Gly Ile	Leu 3075 Tyr	Lys 3060 Asn Trp	Leu Asn Thr	Ala Asp Ser	Val Val 3095	Ala 3080 Thr	Gly 3065 Leu Thr	Ser Asp Gln Val	Phe Gly Leu	Asp Ser	Tyr 3085 Met	Leu 3070 Arg	Glu Arg Gly	Gln Arg Leu
Gln Met Met	Gly Ile 090 His	Leu 3075 Tyr Leu	Lys 3060 Asn Trp Asn	Leu Asn Thr	Ala Asp Ser	Val Val 3095 Asn	Ala 3080 Thr Val	Gly 3065 Leu Thr Gln	Ser Asp Gln Val	Phe Gly Leu 3115	Asp Ser 3100 His	Tyr 3085 Met Arg	Leu 3070 Arg Ile Thr	Glu Arg	Gln Arg Leu 3120
Gln Met 3 Met 3105 Ser	Gly Ile 090 His Asn	Leu 3075 Tyr Leu Pro	Lys 3060 Asn Trp Asn Asp	Leu Asn Thr Gly Gly 3125	Ala Asp Ser 3110 Leu	Val Val 3095 Asn Ala	Ala 3080 Thr Val	Gly 3065 Leu Thr Gln Asp	Ser Asp Gln Val Trp 3130	Phe Gly Leu 3115 Val	Asp Ser 3100 His Gly	Tyr 3085 Met Arg Gly	Leu 3070 Arg Ile Thr	Glu Arg Gly Leu 3135	Gln Arg Leu 3120 Tyr
Gln Met 3 Met 3105 Ser	Gly Ile 090 His Asn	Leu 3075 Tyr Leu Pro	Lys 3060 Asn Trp Asn Asp	Leu Asn Thr Gly Gly 3125	Ala Asp Ser 3110 Leu	Val Val 3095 Asn Ala	Ala 3080 Thr Val Val	Gly 3065 Leu Thr Gln Asp	Ser Asp Gln Val Trp 3130 Glu	Phe Gly Leu 3115 Val	Asp Ser 3100 His Gly	Tyr 3085 Met Arg Gly Lys	Leu 3070 Arg Ile Thr Asn	Glu Arg Gly Leu 3135	Gln Arg Leu 3120 Tyr
Gln Met 3 Met 3105 Ser Trp	Gly Ile 090 His Asn Cys	Leu 3075 Tyr Leu Pro	Lys 3060 Asn Trp Asn Asp Lys 3140	Leu Asn Thr Gly Gly 3125 Gly	Ala Asp Ser 3110 Leu Arg	Val Val 3095 Asn Ala	Ala 3080 Thr Val Val	Gly 3065 Leu Thr Gln Asp Ile 3145	Ser Asp Gln Val Trp 3130 Glu	Phe Gly Leu 3115 Val	Ser 3100 His Gly Ser	Tyr 3085 Met Arg Gly Lys	Leu 3070 Arg Ile Thr Asn Leu 3150	Glu Arg Gly Leu 3135 Asn	Gln Arg Leu 3120 Tyr Gly
Gln Met 3 Met 3105 Ser Trp	Gly Ile 090 His Asn Cys	Leu 3075 Tyr Leu Pro Asp	Lys 3060 Asn Trp Asn Asp Lys 3140	Leu Asn Thr Gly Gly 3125 Gly	Ala Asp Ser 3110 Leu Arg	Val Val 3095 Asn Ala Asp	Ala 3080 Thr Val Val	Gly 3065 Leu Thr Gln Asp Ile 3145	Ser Asp Gln Val Trp 3130 Glu	Phe Gly Leu 3115 Val	Ser 3100 His Gly Ser	Tyr 3085 Met Arg Gly Lys	Leu 3070 Arg Ile Thr Asn	Glu Arg Gly Leu 3135 Asn	Gln Arg Leu 3120 Tyr Gly
Gln  Met  3  Met 3105 Ser  Trp	Gly Ile 090 His Asn Cys	Leu 3075 Tyr Leu Pro Asp Arg 3155	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr	Leu Asn Thr Gly Gly 3125 Gly Val	Ala Asp Ser 3110 Leu Arg	Val Val 3095 Asn Ala Asp	Ala 3080 Thr Val Val Thr Ser 3160	Gly 3065 Leu Thr Gln Asp Ile 3145 Ser	Ser Asp Gln Val Trp 3130 Glu Gly	Phe Gly Leu 3115 Val Val Leu	Ser 3100 His Gly Ser Arg	Tyr 3085 Met Arg Gly Lys Glu 3165 Thr	Leu 3070 Arg Ile Thr Asn Leu 3150	Glu Arg Gly Leu 3135 Asn	Gln Arg Leu 3120 Tyr Gly Ala
Gln Met 3 Met 3105 Ser Trp Ala Leu	Gly Ile 1090 His Asn Cys Tyr Val	Leu 3075 Tyr Leu Pro Asp Arg 3155 Val	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr	Leu Asn Thr Gly 3125 Gly Val	Ala Asp Ser 3110 Leu Arg Leu	Val Val 3095 Asn Ala Asp Val Asn 3175	Ala 3080 Thr Val Val Thr Ser 3160 Gly	Gly 3065 Leu Thr Gln Asp Ile 3145 Ser	Ser Asp Gln Val Trp 3130 Glu Gly Leu	Phe Gly Leu 3115 Val Val Leu	Ser 3100 His Gly Ser Arg Trp 3180	Tyr 3085 Met Arg Gly Lys Glu 3165	Leu 3070 Arg Ile Thr Asn Leu 3150 Pro	Glu Arg Gly Leu 3135 Asn Arg	Gln Arg Leu 3120 Tyr Gly Ala Gly
Gln Met 3 Met 3105 Ser Trp Ala Leu Asp	Gly Ile 1090 His Asn Cys Tyr Val	Leu 3075 Tyr Leu Pro Asp Arg 3155 Val	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr	Leu Asn Thr Gly Gly 3125 Gly Val Val Ile	Ala Asp Ser 3110 Leu Arg Leu Gln Gly	Val Val 3095 Asn Ala Asp Val Asn 3175 Arg	Ala 3080 Thr Val Val Thr Ser 3160 Gly	Gly 3065 Leu Thr Gln Asp Ile 3145 Ser	Ser Asp Gln Val Trp 3130 Glu Gly Leu Met	Phe Gly Leu 3115 Val Val Leu Tyr	Asp Ser 3100 His Gly Ser Arg Trp 3180 Gly	Tyr 3085 Met Arg Gly Lys Glu 3165	Leu 3070 Arg Ile Thr Asn Leu 3150 Pro	Glu Arg Gly Leu 3135 Asn Arg Trp	Gln Arg Leu 3120 Tyr Gly Ala Gly
Gln Met 3105 Ser Trp Ala Leu 3Asp 3185	Gly Ile 090 His Asn Cys Tyr Val 3170 His	Leu 3075 Tyr Leu Pro Asp Arg 3155 Val	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr Asp	Leu Asn Thr Gly 3125 Gly Val Val	Ala Asp Ser 3110 Leu Arg Leu Gln Gly 3190	Val Val 3095 Asn Ala Asp Val Asn 3175 Arg	Ala 3080 Thr Val Val Thr Ser 3160 Gly	Gly 3065 Leu Thr Gln Asp Ile 3145 Ser Tyr	Ser Asp Gln Val Trp 3130 Glu Gly Leu Met	Phe Gly Leu 3115 Val Val Leu Tyr Asp 3195	Asp Ser 3100 His Gly Ser Arg Trp 3180 Gly	Tyr 3085 Met Arg Gly Lys Glu 3165 Thr	Leu 3070 Arg Ile Thr Asn Leu 3150 Pro	Glu Arg Gly Leu 3135 Asn Arg Trp	Gln Arg Leu 3120 Tyr Gly Ala Gly Ser 3200
Gln Met 3105 Ser Trp Ala Leu Asp 3185 Val	Gly Ile 090 His Asn Cys Tyr Val 3170 His	Leu 3075 Tyr Leu Pro Asp Arg 3155 Val Ser	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr Asp Leu	Leu Asn Thr Gly Gly3125 Gly Val Val Ile Thr 3205	Ala Asp Ser 3110 Leu Arg Leu Gln Glyys Lys	Val Val 3095 Asn Ala Asp Val Asn 3175 Arg	Ala 3080 Thr Val Val Thr Ser 3160 Gly Ile	Gly Gly Gly Gly Gly Gly Trp	Ser Asp Gln Val Trp 3130 Glu Gly Leu Met Pro 3210	Phe Gly Leu 3115 Val Val Leu Tyr Asp 3195	Asp Ser 3100 His Gly Ser Arg Trp 3180 Gly	Tyr 3085 Met Arg Gly Lys Glu 3165 Thr Ser	Leu 3070 Arg Ile Thr Asn Leu 3150 Pro Asp Ser	Glu Arg Gly Leu 33135 Asn Arg Trp Arg	Gln Arg Leu 3120 Tyr Gly Ala Gly Ser 3200 Asp
Gln Met 3105 Ser Trp Ala Leu Asp 3185 Val	Gly Ile 090 His Asn Cys Tyr Val 3170 His	Leu 3075 Tyr Leu Pro Asp Arg 3155 Val Ser Val	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr Asp Leu Asp	Leu Asn Thr Gly Gly3125 Gly Val Val Ile Thr 3205 Arg	Ala Asp Ser 3110 Leu Arg Leu Gln Glyys Lys	Val Val 3095 Asn Ala Asp Val Asn 3175 Arg	Ala 3080 Thr Val Val Thr Ser 3160 Gly Ile Thr	Gly 3065 Leu Thr Gln Asp Ile 3145 Ser Tyr Gly Trp	Ser Asp Gln Val Trp 3130 Glu Gly Leu Met Pro 3210 Asp	Phe Gly Leu 3115 Val Val Leu Tyr Asp 3195	Asp Ser 3100 His Gly Ser Arg Trp 3180 Gly	Tyr 3085 Met Arg Gly Lys Glu 3165 Thr Ser Leu	Leu 3070 Arg Ile Thr Asn Leu 3150 Pro Asp Ser Thr	Glu Arg Gly Leu 33135 Asn Arg Trp Arg	Gln Arg Leu 3120 Tyr Gly Ala Gly Ser 3200 Asp
Gln Met 3105 Ser Trp Ala Leu Asp 3185 Val	Gly Ile 090 His Asn Cys Tyr Val 3170 His Ile Val	Leu 3075 Tyr Leu Pro Asp Arg 3155 Val Ser Val	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr Asp Leu Asp	Leu Asn Thr Gly Gly3125 Gly Val Val Ile Thr 3205 Arg	Ala Asp Ser 3110 Leu Arg Leu Gln Gly 3190 Lys	Val Val 3095 Asn Ala Asp Val Asn 3175 Arg Ile	Ala 3080 Thr Val Val Thr Ser 3160 Gly Ile Thr	Gly 3065 Leu Thr Gln Asp Ile 3145 Ser Tyr Gly Trp Ala 3225	Ser Asp Gln Val Trp 3130 Glu Gly Leu Met Pro 3210 Asp	Phe Gly Leu 3115 Val Val Leu Tyr Asp 3195 Asn	Asp Ser 3100 His Gly Ser Arg Trp 3180 Gly Gly Arg	Tyr 3085 Met Arg Gly Lys Glu 3165 Thr Ser Leu	Leu 3070 Arg Ile Thr Asn Leu 3150 Pro Asp Ser Thr Asp 3230	Glu Arg Gly Leu 3135 Asn Arg Trp Arg Leu Jugaran	Gln Arg Leu 3120 Tyr Gly Ala Gly Ser 3200 Asp
Gln Met 3105 Ser Trp Ala Leu Asp 3185 Val Tyr Glu	Gly Ile 0990 His Asn Cys Tyr Val 3170 His Ile Val	Leu 3075 Tyr Leu Pro Asp Arg 3155 Val Ser Val Thr	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr Asp Leu Asp Glu 3220 Ser	Leu Asn Thr Gly Gly3125 Gly Val Val Ile Thr 3205 Arg	Ala Asp Ser 3110 Leu Arg Leu Gln Gly 3190 Lys Ile Asp	Val Val 3095 Asn Ala Asp Val Asn 3175 Arg Ile Tyr	Ala 3080 Thr Val Val Thr Ser 3160 Gly Ile Thr Trp	Gly Gly Trp Ala 3225 Asn	Ser Asp Gln Val Trp 3130 Glu Gly Leu Met Pro 3210 Asp	Phe Gly Leu 3115 Val Val Leu Tyr Asp 3195 Asn Ala	Asp Ser 3100 His Gly Ser Arg Trp 3180 Gly Gly Arg Val	Tyr 3085 Met Arg Gly Lys Glu 3165 Thr Ser Leu Val 3245	Leu 3070 Arg Ile Thr Asn Leu 3150 Pro Asp Ser Thr Asp 3230 Leu	Glu Arg Gly Leu 3135 Asn Arg Trp Arg Leu 3215 Tyr	Gln Arg Leu 3120 Tyr Gly Ala Gly Ser 3200 Asp Ile Gln
Gln Met 3105 Ser Trp Ala Leu Asp 3185 Val Tyr Glu Asp	Gly Ile 0990 His Asn Cys Tyr Val 3170 His Ile Val	Leu 3075 Tyr Leu Pro Asp Arg 3155 Val Ser Val Thr Ala 3235	Lys 3060 Asn Trp Asn Asp Lys 3140 Thr Asp Leu Asp Glu 3220 Ser	Leu Asn Thr Gly Gly3125 Gly Val Val Ile Thr 3205 Arg	Ala Asp Ser 3110 Leu Arg Leu Gln Gly 3190 Lys Ile Asp	Val Val 3095 Asn Ala Asp Val Asn 3175 Arg Ile Tyr	Ala 3080 Thr Val Val Thr Ser 3160 Gly Ile Thr Trp Ser 3240 Leu	Gly Gly Trp Ala 3225 Asn	Ser Asp Gln Val Trp 3130 Glu Gly Leu Met Pro 3210 Asp	Phe Gly Leu 3115 Val Val Leu Tyr Asp 3195 Asn Ala His	Asp Ser 3100 His Gly Ser Arg Trp 3180 Gly Gly Arg Val	Tyr 3085 Met Arg Gly Lys Glu 3165 Thr Ser Leu Val 3245 Asp	Leu 3070 Arg Ile Thr Asn Leu 3150 Pro Asp Ser Thr Asp 3230 Leu	Glu Arg Gly Leu 3135 Asn Arg Trp Arg Leu 3215 Tyr	Gln Arg Leu 3120 Tyr Gly Ala Gly Ser 3200 Asp Ile Gln

Trp Thr Asp Trp Glu Thr Lys Ser Ile Asn Arg Ala His Lys Thr Thr 3270 3275 Gly Thr Asn Lys Thr Leu Leu Ile Ser Thr Leu His Arg Pro Met Asp 3285 3290 3295 Leu His Val Phe His Ala Leu Arg Gln Pro Asp Val Pro Asn His Pro 3300 3305 3310 Cys Lys Val Asn Asn Gly Gly Cys Ser Asn Leu Cys Leu Leu Ser Pro 3315 3320 3325 Gly Gly Gly His Lys Cys Ala Cys Pro Thr Asn Phe Tyr Leu Gly Ser 3330 3340 Asp Gly Arg Thr Cys Val Ser Asn Cys Thr Ala Ser Gln Phe Val Cys 3350 3355 Lys Asn Asp Lys Cys Ile Pro Phe Trp Trp Lys Cys Asp Thr Glu Asp 3365 3370 3375 Asp Cys Gly Asp His Ser Asp Glu Pro Pro Asp Cys Pro Glu Phe Lys 3380 3385 Cys Arg Pro Gly Gln Phe Gln Cys Ser Thr Gly Ile Cys Thr Asn Pro 3395 3400 3405 Ala Phe Ile Cys Asp Gly Asp Asn Asp Cys Gln Asp Asn Ser Asp Glu 3410 3415 3420 Ala Asn Cys Asp Ile His Val Cys Leu Pro Ser Gln Phe Lys Cys Thr 3425 3430 3435 Asn Thr Asn Arg Cys Ile Pro Gly Ile Phe Arg Cys Asn Gly Gln Asp 3450 3445 Asn Cys Gly Asp Gly Glu Asp Glu Arg Asp Cys Pro Glu Val Thr Cys 3460 3465 3470 Ala Pro Asn Gln Phe Gln Cys Ser Ile Thr Lys Arg Cys Ile Pro Arg 3475 3480 3485 Val Trp Val Cys Asp Arg Asp Asn Asp Cys Val Asp Gly Ser Asp Glu 3490 3495 3500 Pro Ala Asn Cys Thr Gln Met Thr Cys Gly Val Asp Glu Phe Arg Cys 3505 3510 3515 Lys Asp Ser Gly Arg Cys Ile Pro Ala Arg Trp Lys Cys Asp Gly Glu 3525 3530 3535 Asp Asp Cys Gly Asp Gly Ser Asp Glu Pro Lys Glu Glu Cys Asp Glu 3545 3550 Arg Thr Cys Glu Pro Tyr Gln Phe Arg Cys Lys Asn Asn Arg Cys Val 3555 3560 3565 Pro Gly Arg Trp Gln Cys Asp Tyr Asp Asn Asp Cys Gly Asp Asn Ser 3570 3575 3580 Asp Glu Glu Ser Cys Thr Pro Arg Pro Cys Ser Glu Ser Glu Phe Ser 3590 3595 3600 Cys Ala Asn Gly Arg Cys Ile Ala Gly Arg Trp Lys Cys Asp Gly Asp 3605 3610 His Asp Cys Ala Asp Gly Ser Asp Glu Lys Asp Cys Thr Pro Arg Cys 3620 3625 3630 Asp Met Asp Gln Phe Gln Cys Lys Ser Gly His Cys Ile Pro Leu Arg 3635 3645 3640 Trp Arg Cys Asp Ala Asp Ala Asp Cys Met Asp Gly Ser Asp Glu Glu 3650 3655 3660 Ala Cys Gly Thr Gly Val Arg Thr Cys Pro Leu Asp Glu Phe Gln Cys 3670 3675 Asn Asn Thr Leu Cys Lys Pro Leu Ala Trp Lys Cys Asp Gly Glu Asp 3685 3690 Asp Cys Gly Asp Asn Ser Asp Glu Asn Pro Glu Glu Cys Ala Arg Phe 3700 3705 3710 Val Cys Pro Pro Asn Arg Pro Phe Arg Cys Lys Asn Asp Arg Val Cys 3715 3720 3725 Leu Trp Ile Gly Arg Gln Cys Asp Gly Thr Asp Asn Cys Gly Asp Gly 3735 3740 Thr Asp Glu Glu Asp Cys Glu Pro Pro Thr Ala His Thr Thr His Cys 3750 3755 3760 3745 Lys Asp Lys Lys Glu Phe Leu Cys Arg Asn Gln Arg Cys Leu Ser Ser 3770 3765

Ser Leu Arg Cys Asn Met Phe Asp Asp Cys Gly Asp Gly Ser Asp Glu 3785 Glu Asp Cys Ser Ile Asp Pro Lys Leu Thr Ser Cys Ala Thr Asn Ala 3795 3800 3805 Ser Ile Cys Gly Asp Glu Ala Arg Cys Val Arg Thr Glu Lys Ala Ala 3820 3810 3815 Tyr Cys Ala Cys Arg Ser Gly Phe His Thr Val Pro Gly Gln Pro Gly 3835 3830 Cys Gln Asp Ile Asn Glu Cys Leu Arg Phe Gly Thr Cys Ser Gln Leu 3850 3855 3845 Cys Asn Asn Thr Lys Gly Gly His Leu Cys Ser Cys Ala Arg Asn Phe 3860 3865 3870 Met Lys Thr His Asn Thr Cys Lys Ala Glu Gly Ser Glu Tyr Gln Val 3875 3880 3885 Leu Tyr Ile Ala Asp Asp Asn Glu Ile Arg Ser Leu Phe Pro Gly His 3890 3895 3900 Pro His Ser Ala Tyr Glu Gln Ala Phe Gln Gly Asp Glu Ser Val Arg 3905 3910 3915 3920 Ile Asp Ala Met Asp Val His Val Lys Ala Gly Arg Val Tyr Trp Thr 3930 3935 3925 Asn Trp His Thr Gly Thr Ile Ser Tyr Arg Ser Leu Pro Pro Ala Ala 3940 3945 3950 Pro Pro Thr Thr Ser Asn Arg His Arg Arg Gln Ile Asp Arg Gly Val 3960 3965 3955 Thr His Leu Asn Ile Ser Gly Leu Lys Met Pro Arg Gly Ile Ala Ile 3970 3975 3980 Asp Trp Val Ala Gly Asn Val Tyr Trp Thr Asp Ser Gly Arg Asp Val 3990 3995 Ile Glu Val Ala Gln Met Lys Gly Glu Asn Arg Lys Thr Leu Ile Ser 4005 4010 4015 Gly Met Ile Asp Glu Pro His Ala Ile Val Val Asp Pro Leu Arg Gly 4030 4020 4025 Thr Met Tyr Trp Ser Asp Trp Gly Asn His Pro Lys Ile Glu Thr Ala 4035 4040 4045 Ala Met Asp Gly Thr Leu Arg Glu Thr Leu Val Gln Asp Asn Ile Gln 4050 4060 Trp Pro Thr Gly Leu Ala Val Asp Tyr His Asn Glu Arg Leu Tyr Trp 4065 4070 4075 Ala Asp Ala Lys Leu Ser Val Ile Gly Ser Ile Arg Leu Asn Gly Thr 4090 4095 4085 Asp Pro Ile Val Ala Ala Asp Ser Lys Arg Gly Leu Ser His Pro Phe 4110 4100 4105 Ser Ile Asp Val Phe Glu Asp Tyr Ile Tyr Gly Val Thr Tyr Ile Asn 4115 4120 4125 Asn Arg Val Phe Lys Ile His Lys Phe Gly His Ser Pro Leu Val Asn 4130 4135 4140 Leu Thr Gly Gly Leu Ser His Ala Ser Asp Val Val Leu Tyr His Gln 4155 4150` His Lys Gln Pro Glu Val Thr Asn Pro Cys Asp Arg Lys Lys Cys Glu 4165 4170 4175 Trp Leu Cys Leu Leu Ser Pro Ser Gly Pro Val Cys Thr Cys Pro Asn 4180 4185 4190 Gly Lys Arg Leu Asp Asn Gly Thr Cys Val Pro Val Pro Ser Pro Thr 4200 4205 4195 Pro Pro Pro Asp Ala Pro Arg Pro Gly Thr Cys Asn Leu Gln Cys Phe 4215 4220 Asn Gly Gly Ser Cys Phe Leu Asn Ala Arg Arg Gln Pro Lys Cys Arg 4230 4235 4240 Cys Gln Pro Arg Tyr Thr Gly Asp Lys Cys Glu Leu Asp Gln Cys Trp 4245 4250 4255 Glu His Cys Arg Asn Gly Gly Thr Cys Ala Ala Ser Pro Ser Gly Met 4260 4265 4270 Pro Thr Cys Arg Cys Pro Thr Gly Phe Thr Gly Pro Lys Cys Thr Gln 4280

Gln Val Cys Ala Gly Tyr Cys Ala Asn Asn Ser Thr Cys Thr Val Asn 4295 4300 Gln Gly Asn Gln Pro Gln Cys Arg Cys Leu Pro Gly Phe Leu Gly Asp 4305 4310 4315 Arg Cys Gln Tyr Arg Gln Cys Ser Gly Tyr Cys Glu Asn Phe Gly Thr 4325 4330 4335 Cys Gln Met Ala Ala Asp Gly Ser Arg Gln Cys Arg Cys Thr Ala Tyr 4340 4345 4350 Phe Glu Gly Ser Arg Cys Glu Val Asn Lys Cys Ser Arg Cys Leu Glu 4355 4360 4365 Gly Ala Cys Val Val Asn Lys Gln Ser Gly Asp Val Thr Cys Asn Cys 4370 4375 4380 Thr Asp Gly Arg Val Ala Pro Ser Cys Leu Thr Cys Val Gly His Cys 4390 4395 4400 Ser Asn Gly Gly Ser Cys Thr Met Asn Ser Lys Met Met Pro Glu Cys 4410 4415 4405 Gln Cys Pro Pro His Met Thr Gly Pro Arg Cys Glu Glu His Val Phe 4420 4425 4430 Ser Gln Gln Pro Gly His Ile Ala Ser Ile Leu Ile Pro Leu Leu 4435 4440 4445 Leu Leu Leu Leu Val Leu Val Ala Gly Val Val Phe Trp Tyr Lys 4450 4455 4460 Arg Arg Val Gln Gly Ala Lys Gly Phe Gln His Gln Arg Met Thr Asn 4470 4475 Gly Ala Met Asn Val Glu Ile Gly Asn Pro Thr Tyr Lys Met Tyr Glu 4495 4490 4485 Gly Gly Glu Pro Asp Asp Val Gly Gly Leu Leu Asp Ala Asp Phe Ala 4500 4505 4510 Leu Asp Pro Asp Lys Pro Thr Asn Phe Thr Asn Pro Val Tyr Ala Thr 4515 4520 4525 Leu Tyr Met Gly Gly His Gly Ser Arg His Ser Leu Ala Ser Thr Asp 4530 4535 4540 Glu Lys Arg Glu Leu Leu Gly Arg Gly Pro Glu Asp Glu Ile Gly Asp 4550 4555 Pro Leu Ala 4563

<210> 1724 <211> 541 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(540)

<223> Xaa = any amino acid or nothing

<400> 1724 Cys Leu Glu Leu Ala Ser Ala Gly Lys Ile Pro Glu Glu Ser Lys Ala 5 10 . 15 Leu Ser Leu Leu Ala Pro Ala Pro Thr Met Thr Ser Leu Met Pro Gly 25 20 Ala Gly Leu Leu Pro Ile Pro Thr Pro Asn Pro Leu Thr Thr Leu Gly 40 45 35 Val Ser Leu Ser Ser Leu Gly Ala Ile Pro Ala Ala Ala Leu Asp Pro 50 55 60 Asn Ile Ala Thr Leu Gly Glu Ile Pro Gln Pro Pro Leu Met Gly Asn 70 75 Val Asp Pro Ser Lys Ile Asp Glu Ile Arg Arg Thr Val Tyr Val Gly 85 90 Asn Leu Asn Ser Gln Thr Thr Thr Ala Asp Gln Leu Leu Glu Phe Phe 105 100

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Lys Gln Val Gly Glu Val Lys Phe Val Arg Met Ala Gly Asp Glu Thr
                         120
Gln Pro Thr Arg Phe Ala Phe Val Glu Phe Ala Asp Gln Asn Ser Val
                  135
                                      140
Pro Arg Ala Leu Ala Phe Asn Gly Val Met Phe Gly Asp Arg Pro Leu
                  150
                                    155
Lys Ile Asn His Ser Asn Asn Ala Ile Val Lys Pro Pro Glu Met Thr
             165
                                170
Pro Gln Ala Ala Ala Lys Glu Leu Glu Glu Val Met Lys Arg Val Arg
                            185
         180
Glu Ala Gln Ser Phe Ile Ser Ala Ala Ile Glu Pro Gly Trp Leu His
                         200
                                          205
Ser Thr Ser Leu Cys Asn Asp Phe Leu Gly Cys Phe Xaa Arg Arg Arg
        215
                                       220
Met Tyr Arg Glu Xaa Ala Pro Cys Thr Ile Cys Gly Thr Phe His Leu
          230 235
Cys Leu Ile Ile Asn Trp Asp Leu Xaa Leu Phe Xaa Ala Tyr Thr Ala
                              250
Lys Xaa Phe Phe Pro Pro Arg Val Trp Lys Glu Gln Xaa Lys Lys Arg
                           265
         260
Arg Arg Ser Arg Ser His Thr Arg Ser Lys Ser Arg Ser Ser Ser Lys
                                           285
                        280
Ser His Ser Arg Arg Lys Arg Ser Gln Ser Lys His Arg Ser Arg Ser
                     295
                                       300
His Asn Arg Ser Arg Ser Arg Gln Lys Asp Arg Arg Ser Lys Ser
                310
                                   315
Pro His Lys Lys Arg Ser Lys Ser Arg Glu Arg Arg Lys Ser Arg Ser
                               330
                                               335
             325
Arg Ser His Ser Arg Asp Lys Arg Lys Asp Thr Arg Glu Lys Ile Lys
                            345
Glu Lys Glu Arg Val Lys Glu Lys Asp Arg Glu Lys Glu Arg Glu Arg
                        360
                                           365
Glu Lys Glu Arg Glu Lys Glu Lys Glu Arg Gly Lys Asn Lys Asp Arg
                    375
Asp Lys Glu Arg Glu Lys Asp Arg Glu Lys Asp Lys Glu Lys Asp Arg
                                   395
         390
Glu Arg Glu Arg Glu Lys Glu His Glu Lys Asp Arg Asp Lys Glu Lys
             405
                                410
Glu Lys Glu Gln Asp Lys Glu Lys Glu Arg Glu Lys Asp Arg Ser Lys
          420
                            425
Glu Ile Asp Glu Lys Arg Lys Lys Asp Lys Lys Ser Arg Thr Pro Pro
                        440
      435
Arg Ser Tyr Asn Ala Ser Arg Arg Ser Arg Ser Ser Ser Arg Glu Arg
                    455
                                    460
Arg Arg Arg Ser Arg Ser Ser Ser Arg Ser Pro Arg Thr Ser Lys
                  470
                                   475
Thr Ile Lys Arg Lys Ser Ser Arg Ser Pro Ser Pro Arg Ser Arg Asn
             485
                               490
Lys Lys Asp Lys Lys Arg Glu Lys Glu Arg Asp His Ile Ser Glu Arg
         500
                           505
Arg Glu Arg Glu Arg Ser Thr Ser Met Arg Lys Ser Ser Asn Asp Arg
       515
                        520
Asp Gly Lys Glu Lys Leu Glu Lys Asn Ser Thr Ser
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<210> 1725

<211> 107

<212> PRT

<213> Homo sapiens

<221> misc_feature <222> (1) ... (103)

## <223> Xaa = any amino acid or nothing

<400> 1725 Ala His Ser Ser His Gln Thr Arg Ala Ile Leu Gln Glu Phe Gln Trp Asp Ile Ile Arg His Pro Pro Leu Ser Pro Asn Leu Ala Leu Ser Gly 20 25 Phe Phe Pro Asn Leu Lys Lys Ser Leu Arg Gly Thr His Phe Ser Ser 35 40 45 Val Lys Lys Thr Thr Leu Thr Trp Leu Asn Ser Gln Asp Pro Trp Phe 50 55 60 Phe Phe Tyr Pro Xaa Ser Pro Asp Leu Gln Ile Pro Ser Ser Phe Arg 70 75 Asn Gly Leu Asn Asp Trp Tyr His His Ser Gln Lys Cys Pro Asp Leu 85 Asp Gly Ala Tyr Val Lys Lys 100

<210> 1726

<211> 96

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(95)

<223> Xaa = any amino acid or nothing

<400> 1726

Gly Val Xaa Trp Cys Asp Leu Gly Ser Pro Gln Pro Pro Pro Pro Gly 5 1 10 Phe Lys Gln Phe Cys Leu Gly Arg Ser Ser Ser Trp Asp Tyr Arg His 20 25 30 Val Pro Pro His Pro Ala Asn Phe Val Phe Leu Leu Glu Thr Gly Phe 35 40 45 Leu His Ala Gly Gln Ala Gly Leu Gly Asp Pro Pro Ala Ser Ala Ser 55 Gln Ser Ala Gly Ile Thr Gly Val Ser His Thr Trp Pro Lys Asn His 65 70 75 Leu Ile Phe Tyr Ala Cys Leu Val Ile Arg Ser Lys Arg Ile Lys 85 90

<210> 1727

<211> 339

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) . . . (337)

<223> Xaa = any amino acid or nothing

<400> 1727

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Leu Gln Glu Glu Ser Leu Arg Gln Asp Tyr Ala Ser Thr Ser Ala Ser
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                                     60
Val Ser Arg His Ser Ser Ser Val Ser Leu Ser Ser Gly Lys Lys Gly
                 70
                                  75
Thr Cys Ser Asp Gln Glu Tyr Asp Gln Tyr Ser Leu Glu Asp Glu Glu
             85
Glu Phe Asp His Leu Pro Pro Pro Gln Pro Arg Leu Pro Arg Cys Ser
                  105
         100
Pro Phe Gln Arg Gly Ile Pro His Ser Gln Thr Phe Ser Ser Ile Arg
                120
                              125
Glu Cys Arg Arg Ser Pro Ser Ser Gln Tyr Phe Pro Ser Asn Asn Tyr
                                140
           135
Gln Gln Gln Tyr Tyr Ser Pro Gln Ala Gln Thr Pro Asp Gln Gln
               150 155
Pro Asn Arg Thr Asn Gly Asp Lys Pro Pro Lys Lys Tyr Ala Xaa Pro
                             170
Ser Pro Asp Ala Lys Tyr Asn Cys His Xaa Xaa Gln His Ser Ser Pro
         180
                          185
                                          190
Val Thr Val Arg Asn Ser Gln Ser Phe Asp Ser Ser Leu His Gly Ala
     195
                    200
                                205
Gly Asn Gly Ile Ser Arg Ile Gln Ser Cys Ile Pro Ser Pro Gly Gln
                  215
                                    220
Leu Gln His Arg Val His Ser Val Gly His Phe Pro Val Ser Ile Arg
             230
                               235
Gln Pro Leu Lys Ala Thr Ala Tyr Val Ser Pro Thr Val Gln Gly Ser
                    250 255
            245
Ser Asn Met Pro Leu Ser Asn Gly Leu Gln Leu Tyr Ser Asn Thr Gly
                               . 270
                          265
Ile Pro Thr Pro Asn Lys Ala Ala Ala Ser Gly Ile Met Gly Arg Ser
    275
                      280
                                       285
Ala Leu Pro Arg Pro Ser Leu Ala Ile Asn Gly Ser Asn Leu Pro Arg
          295
                            300
Ser Lys Ile Ala Gln Pro Val Arg Ser Phe Leu Gln Pro Pro Lys Pro
       310 315
Leu Ser Ser Leu Ser Thr Leu Arg Asp Gly Asn Trp Arg Asp Gly Cys
             325
                              330
                                               335
337
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<210> 1728
<211> 563
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(558)
<223> Xaa = any amino acid or nothing

. <400> 1728 Val Pro Gly Val Thr Glu Ser Arg Pro Ser Val Leu Arg Gly Asp His 10 Leu Phe Ala Leu Leu Ser Ser Glu Thr His Gln Glu Asp Pro Ile Thr 20 25 Tyr Lys Gly Phe Val His Lys Val Glu Leu Asp Arg Val Lys Leu Ser 35 40 45 Phe Ser Met Ser Leu Leu Ser Arg Phe Val Gly Trp Gly Xaa Pro Phe . 55 60 Lys Val Asn Phe Tyr Thr Phe Asn Arg Gln Pro Leu Arg Val Gln His 70 75 Arg Ala Leu Glu Leu Thr Gly Arg Trp Leu Leu Trp Pro Met Leu Phe 90

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Pro Val Ala Pro Arg Asp Val Pro Leu Leu Pro Ser Asp Val Lys Leu
         100
                         105
Lys Leu Tyr Asp Arg Ser Leu Glu Ser Asn Pro Glu Gln Leu Gln Ala
                     120
     115
                                      125
Met Arg His Ile Val Thr Gly Thr Thr Arg Pro Ala Pro Tyr Ile Ile
                 135
                                  140
  130
Phe Gly Pro Pro Gly Thr Gly Lys Thr Val Thr Leu Val Glu Ala Ile
                       155
       . 150
Lys Gln Val Val Lys His Leu Pro Lys Ala His Ile Leu Ala Cys Ala
165 170 175
Pro Ser Asn Ser Gly Ala Asp Leu Leu Cys Gln Arg Leu Arg Val His
   180 185
Leu Pro Ser Ser Ile Tyr Arg Leu Leu Ala Pro Ser Arg Asp Ile Arg
                     200
    195
                             205
Met Val Pro Glu Asp Ile Lys Pro Cys Cys Asn Trp Asp Ala Lys Lys
                  215
                             220
Gly Glu Tyr Val Phe Pro Ala Lys Lys Lys Leu Gln Glu Tyr Arg Val
        230
                        235
Leu Ile Thr Thr Leu Ile Thr Ala Gly Arg Leu Val Ser Ala Gln Phe
      245 250 255
Pro Ile Asp His Phe Thr, His Ile Phe Ile Asp Glu Ala Gly His Cys
        260
                         265
                                 270
Met Glu Pro Glu Ser Leu Val Ala Ile Ala Gly Leu Met Glu Val Lys
                      280
Glu Thr Gly Asp Pro Gly Gly Gln Leu Val Leu Ala Gly Asp Pro Arg
                   295
                                   300
Gln Leu Gly Pro Val Leu Arg Ser Pro Leu Thr Gln Lys His Gly Leu
             310 315
Gly Tyr Ser Leu Leu Glu Arg Leu Leu Thr Tyr Asn Ser Leu Tyr Lys
         325 330 335
Lys Gly Pro Asp Gly Tyr Asp Pro Gln Phe Ile Thr Lys Leu Leu Arg 340 345 350
Asn Tyr Arg Ser His Pro Thr Ile Leu Asp Ile Pro Asn Gln Leu Tyr
                      360
Tyr Glu Gly Glu Leu Gln Ala Cys Ala Asp Val Val Asp Arg Glu Arg
                  375
                                    380
Phe Cys Arg Trp Ala Gly Leu Pro Arg Gln Gly Phe Pro Ile Ile Phe
         390 395 400
His Gly Val Met Gly Lys Asp Glu Arg Glu Gly Asn Ser Pro Ser Phe
405 410 415
Phe Asn Pro Glu Glu Ala Ala Thr Val Thr Ser Tyr Leu Lys Leu Leu
                          425
                                 430
Leu Ala Pro Ser Ser Lys Lys Gly Lýs Ala Arg Leu Ser Pro Arg Ser
                      440
Val Gly Val Ile Ser Pro Tyr Arg Lys Gln Val Glu Lys Ile Arg Tyr
                 455
                                  460
Cys Ile Thr Lys Leu Asp Arg Glu Leu Arg Gly Leu Asp Asp Ile Lys
              470
                       475
Asp Leu Lys Val Thr Cys Cys Ser Thr Val Thr Pro Cys Leu Pro Cys
                   490 495
           485
Ala Pro Thr Cys Pro Leu Pro Glu Thr Ser Ser Ser Phe His Ser Ser
       500
                         505
Pro Arg Pro Arg Pro Thr Pro Ala Ala Leu Asn Arg Ala Arg Ala Leu
     515 520 525
Pro Glu Pro Leu Thr Pro Gly Asp Ser Asn Leu Arg Val Trp Asp Gly
                         540
                  535
Ile Arg Lys Pro Ala Cys Leu Thr Asn Thr Ser Cys His Ser
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<210> 1729

<211> 101

<212> PRT

## <213> Homo sapiens <221> misc_feature <222> (1)...(101)

<223> Xaa = any amino acid or nothing

<400> 1729 Pro Lys Ala Ala Pro Ser Val Xaa Leu Trp Phe Pro Pro Phe Leu Xaa 10 Gly Ser Phe Lys Pro Thr Lys Gly His Thr Xaa Cys Val Xaa Ile Lys 25 20 Xaa Leu Ser Thr Arg Glu Ala Xaa Asp Ser Xaa Pro Gly Arg Gln Ile 40 45 Ala Xaa Xaa Arg Gln Gly Gly Lys Val Glu Thr Thr Thr Ala Leu Xaa 55 60 Lys Gln Ser Asn Asn Lys Gly Thr Arg Ala Ser Ser Tyr Xaa Glu Pro 70 75 Asp Ala Xaa Glu Gln Trp Lys Phe Pro His Lys Lys Leu Gln Leu Pro 90 Gly Xaa Thr His Glu 100 101

<210> 1730

<211> 107

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(107)

<223> Xaa = any amino acid or nothing

<400> 1730 Gly Gly Thr Gly His Pro His Pro Ala Arg Pro Pro Leu Ser Gly Val 5 10 1 Gly Gly Cys Gln Cys Ser His Ser Lys Pro Trp Thr Ala Gly Ser Pro 20 25 Glu Gln Arg Asp His Pro Ala Pro His Lys Gln Ile Glu Ala Gly Gln Gly Leu Pro Gly Pro Gln Ala Trp Gly Gly Xaa Lys Gly Pro Ala Xaa 60 55 Leu Leu Pro Gly Pro Gly Gly Gly Pro Gly Pro Val Ala Ser Leu Glu 70 75 Ala Arg Ala Gln Ala Ser Ser Gly Val Thr Pro Asn Gly Gly Arg 85 90 Thr Tyr Pro Tyr Pro Thr Phe Ser Ser Gly Glu 100 105 107

<210> 1731

<211> 282

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (280)

<223> Xaa = any amino acid or nothing

<400> 1731

Gly Thr Arg Pro Gly His Leu Pro Ala Pro Ser Asp Gly Phe Cys Val 5 10 His Leu Xaa Ser Ile Pro Ser Trp Gly Ser Phe Xaa Gly Glu Ser Leu 20 25 Glu Met Gln Leu Ile Thr Ser Leu Gly Leu Gln Glu Phe Asp Ile Ala 35 40 Arg Asn Val Leu Glu Leu Ile Tyr Ala Gln Thr Leu Val Trp Ile Gly 50 55 Ile Phe Phe Cys Pro Leu Leu Pro Phe Ile Gln Met Ile Met Leu Phe 70 75 Ile Met Phe Tyr Ser Lys Asn Ile Ser Leu Met Met Asn Phe Gln Pro 85 90 95 Pro Ser Lys Ala Trp Arg Ala Ser Gln Met Met Thr Phe Phe Ile Phe 100 105 Leu Leu Phe Phe Pro Ser Phe Thr Gly Val Leu Cys Thr Leu Ala Ile 115 120 125 Thr Ile Trp Arg Leu Lys Pro Ser Ala Asp Cys Gly Pro Phe Arg Gly 135 140 Leu Pro Leu Phe Ile His Ser Ile Tyr Ser Trp Ile Asp Thr Leu Ser 145 150 155 160 Thr Arg Pro Gly Tyr Leu Trp Val Val Trp Ile Tyr Arg Asn Leu Ile 165 170 175 Gly Ser Val His Phe Phe Phe Ile Leu Thr Leu Ile Val Leu Ile Ile 185 190 Thr Tyr Leu Tyr Trp Gln Ile Thr Glu Gly Arg Lys Ile Met Ile Arg 195 200 205 Leu Leu His Glu Gln Ile Ile Asn Glu Gly Lys Asp Lys Met Phe Leu 210 215 220 Ile Glu Lys Leu Ile Lys Leu Gln Asp Met Glu Lys Lys Ala Asn Pro 230 235 Ser Ser Leu Val Leu Glu Arg Arg Glu Val Glu Gln Gln Gly Phe Leu 245 250 His Leu Gly Glu His Asp Gly Ser Leu Asp Leu Arg Ser Arg Arg Ser 260 265 Val Gln Glu Gly Asn Pro Arg Ala 275

<210> 1732 <211> 72 <212> PRT <213> Homo sapiens

.

<400> 1732

<210> 1733 <211> 400 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(399) <223> Xaa = any amino acid or nothing

<400> 1733 Lys Gly Ala Pro Ser Phe Val Arg Leu Tyr Gln Tyr Pro Asn Phe Ala 10 5 Gly Pro His Ala Ala Leu Ala Asn Lys Ser Phe Phe Lys Ala Asp Lys 25 Val Thr Met Leu Trp Asn Lys Lys Ala Thr Ala Val Leu Val Ile Ala 40 Ser Thr Asp Val Asp Lys Thr Gly Ala Ser Tyr Tyr Gly Glu Gln Thr 55 60 Leu His Tyr Ile Ala Thr Asn Gly Glu Ser Ala Val Val Gln Leu Pro 70 75 Lys Asn Gly Pro Ile Tyr Asp Val Val Trp Asn Ser Ser Ser Thr Glu • 85 90 Phe Cys Ala Val Tyr Gly Phe Met Pro Ala Lys Ala Thr Ile Phe Asn 110 100 105 Leu Lys Cys Asp Pro Val Phe Asp Phe Gly Thr Gly Pro Arg Asn Ala 115 120 125 Ala Tyr Tyr Ser Pro His Gly His Ile Leu Val Leu Ala Gly Phe Gly 135 140 130 Asn Leu Ile Leu Gln Ile Xaa Ala Asp Ile Met Lys Val Trp Asn Val 150 155 Lys Asn Tyr Lys Leu Ile Ser Lys Pro Val Ala Ser Asp Ser Thr Tyr 165 170 175 Phe Ala Trp Cys Pro Asp Gly Glu His Ile Leu Thr Ala Thr Cys Ala 185 Pro Arg Leu Arg Val Asn Asn Gly Tyr Lys Ile Trp His Tyr Thr Gly 195 200 205 Ser Ile Leu His Lys Tyr Asp Val Pro Ser Asn Ala Glu Leu Trp Gln 220 215 Val Ser Trp Gln Pro Phe Leu Asp Gly Ile Phe Pro Ala Lys Thr Ile 225 230 235 240 Thr Tyr Gln Ala Val Pro Ser Glu Val Pro Asn Glu Glu Pro Lys Val 245 250 255 Ala Thr Ala Tyr Arg Pro Pro Ala Leu Arg Asn Lys Pro Ile Thr Asn 260 265 Ser Lys Leu His Glu Glu Glu Pro Pro Gln Asn Met Lys Pro Gln Ser 275 280 285 Gly Asn Asp Lys Pro Leu Ser Lys Thr Ala Leu Lys Asn Gln Arg Lys 295 300 His Glu Ala Lys Lys Ala Ala Lys Gln Glu Ala Arg Ser Asp Lys Ser 310 315 Pro Asp Leu Ala Pro Thr Pro Ala Pro Gln Ser Thr Pro Arg Asn Thr 330 325 Val Ser Gln Ser Ile Ser Gly Asp Pro Glu Ile Asp Lys Lys Ile Lys 340 345 350 Asn Leu Lys Lys Lys Leu Lys Ala Ile Glu Gln Leu Lys Glu Gln Ala 360 Ala Thr Gly Lys Gln Leu Glu Lys Asn Gln Leu Glu Lys Ile Gln Lys 375 380 Glu Thr Ala Leu Leu Gln Glu Leu Glu Asp Leu Glu Leu Gly Ile 390 395

<210> 1734 <211> 224 <212> PRT <213> Homo sapiens

<400> 1734 Ile Arg Ser Pro Ala Ala Arg Ser Pro Gly Leu Glu Thr Pro Thr Cys 1 5 10 Leu Leu Phe Val Ile Ala Ala Ile Ala Ala Val Phe Val Asp Ser Ala 25 20 Ile Pro Arg Leu Thr Gln His Arg Pro Gln Asp Gly Ser Phe Pro Tyr 35 40 Thr Ile Leu Asp Pro Pro Leu Tyr Leu Pro Gly Gln Cys Ala Pro Pro 55 Gln Pro Leu Ser Gln Cys Ala Arg Arg Val His Gly Glu Lys Leu Arg 65 70 75 80 75 70 Arg Pro Thr Phe Gly Pro Arg His Arg Gly Ala Gly Thr Ala Lys Met 85 90 Ser Ala Ser Leu Val Arg Ala Thr Val Arg Ala Val Ser Lys Arg Lys 100 105 110 Leu Gln Pro Thr Arg Ala Ala Leu Thr Leu Thr Pro Ser Ala Val Asn 120 115 Lys Ile Lys Gln Leu Leu Lys Asp Lys Pro Glu His Val Gly Val Lys 135 140 130 Val Gly Val Arg Thr Arg Gly Cys Asn Gly Leu Ser Tyr Thr Leu Glu 145 150 155 160 Tyr Thr Lys Thr Lys Gly Asp Ser Asp Glu Glu Val Ile Gln Asp Gly 165 170 175 Val Arg Val Phe Ile Glu Lys Lys Ala Gln Leu Thr Leu Leu Gly Thr 190 185 Glu Met Asp Tyr Val Glu Asp Lys Leu Ser Ser Glu Phe Val Phe Asn 195 200 205 Asn Pro Asn Ile Lys Gly Thr Cys Gly Cys Gly Glu Ser Phe Asn Ile 215 220

<210> 1735 <211> 842 <212> PRT <213> Homo sapiens

<400> 1735 Val Ala Met Gly Thr Pro Arg Ala Gln His Pro Pro Pro Pro Gln Leu 1 5 10 Leu Phe Leu Ile Leu Leu Ser Cys Pro Trp Ile Gln Gly Leu Pro Leu 20 25 Lys Glu Glu Glu Ile Leu Pro Glu Pro Gly Ser Glu Thr Pro Thr Val 35 40 Ala Ser Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg 55 60 Gly Pro Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly 65 70 80 Gly Glu Glu Glu Thr Thr Thr Thr Ile Ile Thr Thr Thr Thr Val Thr 90 95 85 Thr Thr Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly 105 Glu Gly Tyr Val Glu Ser Pro Asp Leu Gly Ser Pro Val Ser Arg Thr 120 125 115 Leu Gly Leu Leu Asp Cys Thr Tyr Ser Ile His Val Tyr Pro Gly Tyr 135 140 Gly Ile Glu Ile Gln Val Gln Thr Leu Asn Leu Ser Gln Glu Glu 155 160 150 Leu Leu Val Leu Ala Gly Gly Gly Ser Pro Gly Leu Ala Pro Arg Leu 170

Leu Ala Asn Ser Ser Met Leu Gly Glu Gly Gln Val Leu Arg Ser Pro Thr Asn Arg Leu Leu His Phe Gln Ser Pro Arg Val Pro Arg Gly Gly Gly Phe Arg Ile His Tyr Gln Ala Tyr Leu Leu Ser Cys Gly Phe Pro Pro Arg Pro Ala His Gly Asp Val Ser Val Thr Asp Leu His Pro Gly Gly Thr Ala Thr Phe His Cys Asp Ser Gly Tyr Gln Leu Gln Gly Glu Glu Thr Leu Ile Cys Leu Asn Gly Thr Arg Pro Ser Trp Asn Gly Glu Thr Pro Ser Cys Met Ala Ser Cys Gly Gly Thr Ile His Asn Ala Thr Leu Gly Arg Ile Val Ser Pro Glu Pro Gly Gly Ala Val Gly Pro Asn Leu Thr Cys Arg Trp Val Ile Glu Ala Ala Glu Gly Arg Arg Leu His Leu His Phe Glu Arg Val Ser Leu Asp Glu Asp Asn Asp Arg Leu Met Val Arg Ser Gly Gly Ser Pro Leu Ser Pro Val Ile Tyr Asp Ser Asp Met Asp Asp Val Pro Glu Arg Gly Leu Ile Ser Asp Ala Gln Ser Leu Tyr Val Glu Leu Leu Ser Glu Thr Pro Ala Asn Pro Leu Leu Leu Ser Leu Arg Phe Glu Ala Phe Glu Glu Asp Arg Cys Phe Ala Pro Phe Leu Ala His Gly Asn Val Thr Thr Thr Asp Pro Glu Tyr Arg Pro Gly Ala Leu Ala Thr Phe Ser Cys Leu Pro Gly Tyr Ala Leu Glu Pro Pro Gly Pro Pro Asn Ala Ile Glu Cys Val Asp Pro Thr Glu Pro His Trp Asn Asp Thr Glu Pro Ala Cys Lys Ala Met Cys Gly Gly Glu Leu Ser Glu Pro Ala Gly Val Val Leu Ser Pro Asp Trp Pro Gln Ser Tyr Ser . 470 Pro Gly Gln Asp Cys Val Trp Gly Val His Val Gln Glu Glu Lys Arg Ile Leu Leu Gln Val Glu Ile Leu Asn Val Arg Glu Gly Asp Met Leu Thr Leu Phe Asp Gly Asp Gly Pro Ser Ala Arg Val Leu Ala Gln Leu Arg Gly Pro Gln Pro Arg Arg Leu Leu Ser Ser Gly Pro Asp Leu Thr Leu Gln Phe Gln Ala Pro Pro Gly Pro Pro Asn Pro Gly Leu Gly . 550 Gln Gly Phe Val Leu His Phe Lys Glu Val Pro Arg Asn Asp Thr Cys Pro Glu Leu Pro Pro Pro Glu Trp Gly Trp Arg Thr Ala Ser His Gly Asp Leu Ile Arg Gly Thr Val Leu Thr Tyr Gln Cys Glu Pro Gly Tyr Glu Leu Leu Gly Ser Asp Ile Leu Thr Cys Gln Trp Asp Leu Ser Trp Ser Ala Ala Pro Pro Ala Cys Gln Lys Ile Met Thr Cys Ala Asp Pro Gly Glu Ile Ala Asn Gly His Arg Thr Ala Ser Asp Ala Gly Phe Pro Val Gly Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu Gly Ala Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys 

Trp Ser Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu 695 Asn Pro Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His 710 715 Tyr Gln Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu 730 725 Leu Ile Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln 745 750 Trp Thr Ser Gln Pro Pro Leu Cys Lys Val Thr Gln Thr Thr Asp Pro · 755 760 Ser Arg Gln Leu Glu Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro 775 780 Leu Gly Leu Val Ile Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr 790 795 Lys Leu Gln Gly Lys Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr 810 815 805 Ser Pro Ile Thr Val Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala 825 820 Gly Asp Thr Arg Glu Tyr Glu Val Ser Ile 835 840 842

<210> 1736 <211> 582 <212> PRT <213> Homo sapiens

<400> 1736 Gly Thr Ser Thr Val Thr Met Ala Thr Lys Lys His Phe Ser Ile Ile 10 Leu Asn Leu Leu Gly Met Leu Leu Lys Lys Asp Asn Gln Asp Thr Arg 25 30 Lys Leu Leu Met Thr Trp Ala Leu Glu Val Ala Val Val Met Lys Lys 40 Ser Glu Thr Tyr Ala Pro Leu Phe Cys Leu Pro Ser Phe His Lys Phe 55 Cys Lys Gly Leu Leu Ala Asp Thr Leu Val Glu Asp Val Asn Ile Cys 70 75 Leu Gln Ala Cys Ser Ser Leu His Ala Leu Ser Ser Ser Leu Pro Asp 90 95 85 Asp Leu Leu Gln Arg Cys Val Asp Val Cys Arg Val Gln Leu Val His 105 110 Arg Gly Thr Cys Ile Arg Gln Ala Phe Gly Lys Leu Leu Lys Ser Ile 120 Pro Leu Gly Val Phe Leu Ser Asn Asn Asn His Thr Glu Ile Gln Glu 135 140 Ile Ser Leu Ala Leu Arg Ser His Met Ser Lys Ala Pro Ser Asn Thr 150 155 Phe His Pro Gln Asp Phe Ser Asp Val Ile Ser Phe Ile Leu Tyr Gly
165 170 175 Asn Ser His Arg Thr Gly Lys Asp Asn Trp Leu Glu Arg Leu Phe Tyr 180 185 190 Ser Cys Gln Arg Leu Asp Lys Arg Asp Gln Ser Thr Ile Pro Arg Asn 195 . 200 205 Leu Leu Lys Thr Asp Ala Val Leu Trp Gln Trp Ala Ile Trp Glu Ala 210 215 220 Ala Gln Phe Thr Val Leu Ser Lys Leu Arg Thr Pro Leu Gly Arg Ala 235 230 Gln Asp Thr Phe Gln Thr Ile Glu Gly Ile Ile Arg Ser Leu Ala Gly 250 245

His Thr Leu Asn Pro Asp Gln Asp Val Ser Gln Trp Thr Thr Ala Asp 260 265 270

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Asn Asp Glu Gly His Gly Asn Asn Gln Leu Arg Leu Val Leu Leu
                        280
Gln Tyr Leu Glu Asn Leu Glu Lys Leu Met Tyr Asn Ala Tyr Glu Gly
                                     300
   290
           295
Cys Ala Asn Ala Leu Thr Ser Pro Pro Lys Val Ile Arg Thr Phe Leu
                 310
                                 315
Tyr Thr Asn Arg Gln Thr Cys Gln Asp Trp Leu Thr Arg Ile Arg Leu
                              330
                                                335
             325
Ser Ile Met Arg Val Gly Leu Leu Ala Gly Gln Pro Ala Val Thr Val
          340
                    345
                                   350
Arg His Gly Phe Asp Leu Leu Thr Glu Met Lys Thr Thr Ser Leu Ser
              360
Gln Gly Asn Glu Leu Glu Val Ser Ile Met Met Val Val Glu Ala Leu
           375
                                     380
Cys Glu Leu His Cys Pro Glu Ala Ile Gln Gly Ile Ala Val Trp Ser
385 390
                                 395
Ser Ser Ile Val Gly Lys His Leu Leu Trp Ile Asn Ser Val Ala Gln
             405
                              410
Gln Ala Glu Gly Arg Phe Glu Lys Ala Ser Val Glu Tyr Gln Glu His
         420
                          425
                                            430
Leu Cys Ala Met Thr Gly Val Asp Cys Cys Ile Ser Ser Phe Asp Lys
                     440
      435
                                  445
Ser Val Leu Thr Leu Ala Ser Ala Gly Cys Lys Ser Ala Ser Leu Lys
                   455
                                     460
His Cys Leu Asn Gly Glu Ser Arg Lys Ser Val Leu Ser Lys Pro Thr
                470
                                475
Asp Ser Ser Pro Glu Val Ile Asn Tyr Leu Gly Asn Lys Ala Cys Glu
           485
                             490
Cys Tyr Ile Ser Thr Ala Asp Trp Ala Ala Val Gln Glu Trp Gln Asn
                                 . 510
         500
                          505
Ala Ile His Asp Leu Lys Lys Ser Thr Ser Ser Thr Ser Leu Asn Leu
                       520
                                        525
Lys Ala Asp Phe Asn Tyr Ile Lys Ser Leu Ser Ser Phe Glu Ser Gly
                  535
                           540
Lys Phe Val Glu Cys Thr Glu Gln Leu Glu Leu Pro Gly Glu Asn
               550 555
545
Ile Asn Leu Leu Ala Gly Gly Ser Lys Glu Lys Ile Asp Met Lys Lys
            565
                             570
                                             575
Leu Leu Arg Asn Met
          580 581
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<210> 1737 <211> 101 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(100)

<223> Xaa = any amino acid or nothing

Arg Phe Lys Ala Ile Tyr Ile Lys Ile Pro Ala Thr Tyr Phe Ile Glu
. 85 90 95

Thr Asn Met Gln
. 100

<210> 1738 <211> 86 <212> PRT <213> Homo sapiens

<221> misc_feature
<222> (1)...(86)
<223> Xaa = any amino acid or nothing

<400> 1738 Pro Gln Trp Leu Gly Leu Gln Val Tyr Ala Leu Pro Pro Ala Asn Phe 1 5 10 15 Val Phe Phe Val Glu Met Arg Ser Thr Ile Leu Ala Gln Thr Gly Phe 20 25 Glu Leu Leu Asp Ser Ser Asp Leu Pro Ala Ser Ala Ser Lys Ser Ala 40 45 35 Gly Ile Thr Cys Met Ser His His Ala Arg Thr Leu Ser Leu Lys Xaa . 55 50 60 Trp Pro Phe Cys Leu Ser Ala Thr Gln Glu Lys Phe Cys Xaa Pro Ala . 75 70 Ser Glu Gly Val Ala Trp

<210> 1739
<211> 112
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(111)
<223> Xaa = any amino acid or nothing

<400> 1739 Leu Asp Gly Tyr His Thr Pro Ile Tyr Met Leu Asn Arg Ile Ile Arg 10 5 1 Leu Pro Ala Ala Leu Xaa Ile Ile Ser Asp Gln Thr Gly His Ala Leu 20 25 30 Thr Ile Leu Thr Arg Leu Glu Thr Gln Met Ile Asn Ala Asp Tyr Gln 45 40 Asn Lys Leu Thr Leu Asp Tyr Leu Leu Thr Thr Asp Arg Glu Val Tyr 55 50 60 Glu Pro Phe Asn Leu Thr Asn Tyr Cys Leu His Ile His Asn Gln Arg 75 70 Leu Gly Ala Tyr Asp Leu Gly Xaa Val Xaa Gln Lys Leu Ala His Val 90 85 Pro Val Gln Val Xaa His Gly Phe Asp Pro Glu Ala Met Phe Arg 100 105 110 111

<210> 1740 <211> 124 <212> PRT

<221> Homo sapiens

<221> misc_feature

<222> (1)...(123)

<223> Xaa = any amino acid or nothing

<400> 1740 Gly Arg Cys His Asp Gln Asn Lys Gly Lys Ser Asp Gly Pro Asp Ala 10 Gln Ala Glu Ala Cys Gly Gly Glu Ser Thr Tyr Gln Glu Leu Leu Val 25 20 Asn Gln Asn Pro Ile Gly Gln Pro Leu Ala Cys Arg Arg Leu Thr Arg 40 45 Lys Ile Tyr Glu Gly Ile Lys Lys Ala Val Lys Pro Asn His Ser Pro 55 Arg Gly Val Lys Lys Val His Lys Phe Val Asn Lys Gly Glu Lys Gly 75 70 Ile Met Val Leu Ala Gly Asp Thr Leu Gly Ile Gly Val Tyr Cys Leu 95 90 Leu Pro Cys Met Cys Xaa Asp Arg Lys Leu Thr Tyr Ala His Ile Pro 100 105 Ser Thr Thr Asp Leu Gly Ala Gly Ala Gly Tyr 120

<210> 1741 <211> 134 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(133)
<223> Xaa = any amino acid or nothing

<400> 1741 Phe Phe Gln Glu Met Leu Asp Ile Met Lys Ala Ile Ser Asp Met Met 5 10 Gly Lys Cys Thr Tyr Pro Val Leu Lys Glu Asp Ala Pro Arg Gln His 25 20 Val Glu Thr Phe Phe Gln Glu Glu Leu Thr Arg Ser Gln Glu Gly Met 40 35 Lys Leu Gly Glu Asn Phe Leu Met Phe Ala Met Pro Pro Asp Asp Ser 55 60 Lys Glu Ser Lys Gly Lys Xaa Phe Phe Gln Glu Met Leu Asp Ile Met 70 75 Lys Ala Ile Ser Asp Met Met Gly Lys Cys Thr Tyr Pro Val Leu Lys 90 85 Glu Asp Ala Pro Arg Gln His Val Glu Thr Phe Phe Gln Val Gly Ile 100 105 110 Asn Gln Lys Ser Arg Gly His Glu Val Arg Arg Lys Phe Pro Asp Val 115 120 125 Cys His Ala Pro Arg . 130 133

<210> 1742 <211> 128 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(126) <223> Xaa = any amino acid or nothing

<400> 1742 Phe Phe Phe Gly Asp Gly Val Ser Pro Cys Arg Gln Ala Gly Val Xaa 10 Trp His Asp Leu Asp Ser Leu Gln Asn Leu Pro Pro Gly Phe Lys Arg 20 25 30 Phe Ser Tyr Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg His Val Leu 35 40 45 Pro Arg Gln Ala Asn Phe Cys Ile Phe Met Xaa Arg Arg Gly Phe Thr 55 60 Met Leu Ala Arg Met Val Ser Ile Ser Xaa Pro Arg Asp Leu Pro Ala 70 Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His His Ala Pro 90 95 85 Pro Gln Met Asp Phe Thr Phe Ala Leu Leu Cys Phe Ala Leu Lys Gly 105 110 Cys Leu Pro Arg Gln Lys Glu Gly Gly Thr Leu Asn Leu Ile 120

<210> 1743 <211> 127 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(127) <223> Xaa = any amino acid or nothing

<400> 1743 Arg Asn Arg Ser Val Val Pro Glu Phe Val Leu Leu Gly Leu Ser Ala 5 10 Gly Pro Gln Thr Gln Thr Leu Leu Phe Val Leu Phe Val Val Ile Cys 25 30 Leu Leu Thr Val Met Gly Asn Leu Leu Leu Leu Val Val Ile Asn Ala 40 45 Asp Ser Cys Leu His Thr Pro Met Tyr Phe Phe Leu Gly Gln Leu Ser 55 Phe Leu Asp Leu Cys His Ser Ser Val Thr Ala Pro Lys Leu Leu Glu 70 75 Asn Leu Leu Ser Glu Lys Lys Thr Ile Ser Val Glu Gly Cys Met Ala 85 90 Xaa Val Phe Phe Val Phe Ala Thr Gly Gly Thr Glu Ser Ser Leu Leu 100 105 110 Ala Val Met Ala Tyr Asp Arg Tyr Val Ala Ile Arg Thr Arg Gly 120

<210> 1744 <211> 160 <212> PRT <213> Homo sapiens

<400> 1744
Cys Thr Lys Cys Lys Ala Asp Cys Asp Thr Cys Phe Asn Lys Asn Phe
1 5 10 15

Cys Thr Lys Cys Lys Ser Gly Phe Tyr Leu His Leu Gly Lys Cys Leu 25 Asp Asn Cys Pro Glu Gly Leu Glu Ala Asn Asn His Thr Met Glu Cys 35 40 45 Val Ser Ile Val His Cys Glu Val Ser Glu Trp Asn Pro Trp Ser Pro 55 60 Cys Thr Lys Lys Gly Lys Thr Cys Gly Phe Lys Arg Gly Thr Glu Thr 75 70 Arg Val Arg Glu Ile Ile Gln His Pro Ser Ala Lys Gly Asn Leu Cys 90 85 Pro Pro Thr Asn Glu Thr Arg Lys Cys Thr Val Gln Arg Lys Lys Cys 100 105 Gln Lys Gly Glu Arg Gly Lys Lys Gly Arg Glu Arg Lys Arg Lys Lys 120 115 Pro Asn Lys Gly Glu Ser Lys Glu Ala Ile Pro Asp Ser Lys Ser Leu 140 135 Glu Ser Ser Lys Glu Ile Pro Glu Gln Arg Glu Asn Lys Gln Gln Gln 155

<210> 1745 <211> 113 <212> PRT <213> Homo sapiens

<400> 1745 Arg Val Leu Tyr Val Pro Ser Met Gly Phe Cys Ile Leu Val Ala His 10 Gly Trp Gln Lys Ile Ser Thr Lys Ser Val Phe Lys Lys Leu Ser Trp 20 25 Ile Cys Leu Ser Met Val Ile Leu Thr His Ser Leu Lys Thr Phe His 40 35 Arg Asn Trp Asp Trp Glu Ser Glu Tyr Thr Leu Phe Met Ser Ala Leu 55 Lys Val Asn Lys Asn Asn Ala Lys Leu Trp Asn Asn Val Gly His Ala 65 70 75 . 80 75 80 65 Leu Glu Asn Glu Lys Asn Phe Glu Arg Ala Leu Lys Tyr Phe Leu Gln 85 90 Ala Thr His Val Gln Pro Asp Asp Ile Gly Ala His Met Asn Val Gly 105 Arg

<210> 1746 <211> 57 <212> PRT <213> Homo sapiens

113

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<210> 1747
     <211> 130
     <212> PRT
     <213> Homo sapiens
    <221> misc_feature
     <222> (1)...(130)
     <223> Xaa = any amino acid or nothing
     <400> 1747
Ala Glu Pro Ala Cys Gly Ala Ser Ser Cys Thr Pro Pro Ser Leu Arg
                                    10
Ser Ser Ser Ser Gln Ser Val Gly Pro Leu Arg Pro Gly Arg Pro Leu
                                25
Trp Ser Glu Ala Cys Ala Phe Leu Xaa Ala Ala Pro Gln Gly Pro
     35
                           40
Ala Ser Pro Cys Cys Gly Leu Pro Ser Gly Phe Pro Arg Val Trp Ala 50 60
Gln Cys Cys Pro Pro Gly Gly Ala Leu Arg Phe Pro Glu Gly Leu Gly 65 70 75 80
                   70
                                       75
Ser Val Leu Ser Pro Arg Arg Cys Pro Gln Val Ser Arg Gly Ser Gly
                                   90
Leu Ser Ala Val Pro Gln Glu Val Pro Ser Gly Phe Leu Gly Pro Gly
           100
                               105
                                                  110
Leu Arg Ala Cys Pro Gln Glu Ala Pro Ser Arg Phe Leu Arg Ala Gly
                          120
Leu Thr
  130
    <210> 1748
    <211> 285
     <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1) ... (285)
     <223> Kaa = any amino acid or nothing
    <400> 1748
Lys Gln Arg Arg Trp Gln Asn Ile Gln Arg Lys Gly Pro Lys Arg Tyr
                                    10
Ile Val Ile Ala Gly Asn Ser Gln Ser His Gln Pro Met Ile Phe Ser
           20
                                25
Met Leu Arg Lys Leu Pro Lys Val Thr Cys Arg Asp Val Leu Pro Glu
       35
                           40
                                               45
Ile Arg Ala Ile Cys Ile Glu Glu Ile Gly Cys Trp Met Gln Ser Tyr
                       55
                                          60
Ser Thr Ser Phe Leu Thr Asp Ser Tyr Leu Lys Tyr Ile Gly Trp Thr
Leu His Asp Lys His Arg Glu Val Arg Val Lys Cys Val Lys Ala Leu
                85
                                    90
Lys Gly Leu Tyr Gly Asn Arg Asp Leu Thr Ala Arg Leu Glu Leu Phe
         100
                              105
                                                  110
Thr Gly Arg Phe Lys Asp Trp Met Val Ser Met Ile Val Asp Arg Glu
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125

120

135

Tyr Ser Val Ala Val Glu Ala Val Arg Leu Leu Ile Leu Ile Leu Lys

115

Asn Met Glu Gly Val Leu Met Asp Val Asp Cys Glu Ser Val Tyr Pro 150 155 Ile Val Xaa Ala Ser Asn Xaa Gly Leu Ala Ser Ala Val Gly Glu Phe 165 170 Leu Tyr Trp Lys Leu Phe Tyr Pro Glu Cys Glu Ile Arg Thr Met Gly 180 185 Gly Arg Glu Gln Arg Gln Ser Pro Gly Ala Gln Arg Thr Phe Phe Gln 195 200 205 Leu Leu Ser Phe Phe Val Glu Ser Lys Ser His Ser Val Thr Gln 215 220 Ala Gly Val Gln Trp Gln Phe Ser Ala His Arg Asp Leu Cys Leu Pro 235 230 Gly Ser Ser Asn Ser His Val Ser Ala Ser Arg Val Ala Gly Ile Ala 245 250 Gly Ala His Arg His Thr Trp Leu Ile Tyr Val Phe Phe Ser Trp Arg 260 265 Gln Gly Phe Ala Val Leu Ala Gly Leu Val Ser Asn Ser 280

<210> 1749

<211> 624

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (618)

<223> Xaa = any amino acid or nothing

<400> 1749 Leu Arg Ser Tyr Gly Cys Lys Ala Pro Ser Arg Ile Ser His Leu His 5 · 1 10 Lys Phe Leu Phe Leu Leu Pro Ser Leu Leu Met Gly Tyr Ser Glu 20 25 Ser Pro Pro Pro Ile Thr Asp Ser Trp Ala Pro Phe Ile Ser Leu Thr 40 His His Val Leu Ser Gln Ser Gln Ser Pro Leu Ser Ser Asn Cys Trp 55 60 Ile Cys Leu Ser Thr His Thr Gln Xaa Phe Thr Ala Leu Pro Ala Asp 70 75 Leu Leu Thr Trp Thr Gln Ser Asn Val Ser Leu His Ile Ser Tyr Leu 90 Ala Ile Pro Phe Leu Ala Asp Ser Phe Leu Lys Pro Val Leu Xaa Pro 105 Gly Asn Ser Ala Lys His Leu Ser Phe Lys Leu Ser Ser Leu Ser Met 115 120 125 Val Ser Gly Arg Ala Val Ala Leu Leu His Leu Ile Ala Ser Gly Leu 135 140 Thr Ser Ile Gln Thr Asn Thr Ala Ser Ser Lys Pro Pro Ile Trp Gly 150 155 Tyr Leu Ser Thr Gln Thr Ser Phe Ile Ser Pro Pro Pro Leu Cys Leu 165 170 175 Ser Arg Thr Tyr Pro Asn Pro Ala His Ala Thr Met Val Gly Gln Val 180 185 190 Pro Gln Ser Leu Cys Gly Leu Ile Phe Thr Leu Arg Thr Pro Cys Arg 200 Pro Ser Ile Leu His Pro Asn Tyr Lys Ile Ile Ser Thr Ser Ala Trp 220 215 Gln Lys Val Leu Cys Phe Ser Gly Ser Pro Thr Ile His Thr Ser Leu 230 235 His Leu Thr Thr Gly Ser Ser Phe Leu Ser Phe His Pro Ile Pro Gly 250

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Phe Pro Ala Ala Asn Ser Ala Leu Tyr Val Ser Ser Leu Lys Gly Pro
         260
               265 270
Pro Gly Lys Asn Val Thr Ile Pro Ser Pro Val Thr Gly Thr Xaa Gln
      275 280
                                 285
Pro Pro His Arg Gly Ser Asn Arg Leu Thr Val Asp Lys Asp Asn Phe
                  295
                                      300
Phe Leu Ser Pro Lys Pro Asn Ser Leu His Gln Leu Pro Ser Gln Thr
                 310
                                   315
Pro Tyr Gln Ala Leu Thr Gly Ala Ala Leu Ala Gly Ser Tyr Pro Ile
            325
                             330
Trp Glu Asn Glu Asn Thr Leu Ser Trp Leu Pro Thr Phe Thr Tyr Asn 340 345 350
Phe Cys Leu Ser Thr Pro Ser Leu Phe Phe Leu Cys Asp Thr Asn Xaa
     355 360
                                         365
Tyr Leu Cys Leu Pro Ala Asn Trp Ser Gly Thr Cys Thr Leu Val Phe
                   375
                                    380
Gln Ala Pro Thr Ile Asn Ile Leu Pro Pro Asn Gln Thr Ile Leu Ile
                390
                      395
Ser Val Glu Ala Ser Ile Ser Ser Ser Pro Ile Arg Asn Lys Trp Ala
            405 410
Leu His Leu Ile Thr Leu Leu Thr Gly Leu Gly Ile Thr Ala Ala Leu 420 425 430
Gly Thr Gly Ile Ala Gly Ile Thr Thr Ser Ile Thr Ser Tyr Gln Thr
       435
                        440
Leu Phe Thr Thr Leu Ser Asn Thr Val Glu Asp Met His Thr Ser Ile
                   455
                                      460
Thr Ser Leu Gln Arg Gln Leu Asp Phe Leu Val Gly Val Ile Leu Gln
                 470
                                  475
Asn Trp Arg Val Leu Asp Leu Leu Thr Thr Glu Lys Gly Gly Thr Cys
            485
                             490
Ile Tyr Leu Gln Glu Glu Cys Cys Phe Cys Val Asn Glu Ser Gly Ile
         500
                           505
                                            510
Val His Ile Ala Val Arg Arg Leu His Asp Arg Ala Ala Glu Leu Xaa
                      520
His Gln Val Ala Asp Ser Trp Trp Gln Gly Ser Ser Leu Leu Arg Trp
                   535
                                     540
Ile Pro Trp Val'Ala Pro Phe Leu Gly Pro Leu Ile Phe Leu Phe Leu
                550
                                555
Leu Leu Met Ile Gly Pro Cys Ile Phe Asn Leu Val Ser Arg Phe Ile
           565 570 575
Ser Gln Arg Leu Asn Cys Phe Ile Gln Ala Ser Met Gln Lys His Ile
580 585 590
Asp Asn Ile Phe His Leu Cys His Val Xaa Tyr Gln Ser Leu Arg Gly
     595
                        600
Asn His Ser Glu Ala Pro Glu Pro Arg Pro
                    615
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<210> 1750 <211> 150 <212> PRT <213> Homo sapiens

Glu Glu Arg Leu Ile Glu Leu Leu Arg Asp Lys Asp Ala Leu Trp Gln 70 75 Lys Ser Asp Ala Leu Glu Phe Gln Gln Lys Leu Ser Ala Glu Glu Arg 85 90 95 Trp Leu Gly Asp Thr Glu Ala Asn His Cys Leu Asp Cys Lys Arg Glu 105 110 100 Phe Ser Trp Met Val Arg Arg His His Cys Arg Ile Cys Gly Arg Ile 125 120 115 Phe Cys Tyr Tyr Cys Cys Asn Asn Tyr Val Leu Ser Lys His Gly Gly 135 140 Lys Lys Glu Arg Cys Cys

<210> 1751

<211> 209

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(208)

<223> Xaa = any amino acid or nothing

<400> 1751 Met Ala Pro Gln His Ser Ser Leu Asp Asp Lys Val Pro Gln Gln Ala 10 15 Ser Thr Val Cys Phe Glu Phe Gln Asp Ile Leu Gln His Ser Gln Cys 25 30 20 Thr Glu His Lys Asp Ser Leu Trp Gly Pro Gly Ala Arg Ser Gln Pro 35 40 Phe Gly Ala His Asn Thr Arg Leu Ser Pro Asp Ser Cys Pro Glu Lys 50 55 60 Ile Val Leu Arg Ala Leu Lys Asp Ser Arg Ala Gly Met Pro Glu Gln 70 75 Asp Lys Asp Pro Gly Val Gln Glu Asn Pro Asp Asp Gln Arg Arg Val 90 Pro Gln Gly Thr Gly Asp Ala Pro Ser Ala Phe Arg Pro Leu Trp Asp 100 105 110 Asn Gly Gly Leu Ser Pro Phe Val Ser Arg Pro Gly Pro Leu Glu Arg 115 120 125 Asp Leu His Ala Gln Arg Ser Glu Val Thr Tyr Asn Gln Arg Ser Gln 135 140 Ser Ser Trp Met Ser Ser Phe Pro Lys Arg Asn Ala Phe Val Ser Pro 150 155 Tyr Ser Ser Met Gly Gln Ala Gln Pro Gly Leu Pro Lys Thr Asn Pro 170 175 165 Ile Gly Glu Ser Cys Cys Trp Glu Gly Leu Ser Leu Ser Thr Gln Ile 190 180 185 Leu Gly Xaa Gln Lys Pro Ser Lys Tyr Ile Pro Ser Leu Cys Lys Arg 200 205

<210> 1752 <211> 510 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(499)

## <223> Xaa = any amino acid or nothing

<400> 1752 Met Glu Leu Pro Ser Gly Pro Gly Pro Glu Arg Leu Phe Asp Ser His Arg Leu Pro Gly Asp Cys Phe Leu Leu Leu Val Leu Leu Leu Tyr Ala Pro Val Gly Phe Cys Leu Leu Val Leu Arg Leu Phe Leu Gly Ile His Val Phe Leu Val Ser Cys Ala Leu Pro Asp Ser Val Leu Arg Arg Phe Val Val Arg Thr Met Cys Ala Val Leu Gly Leu Val Ala Arg Gln Glu Asp Ser Gly Leu Arg Asp His Ser Val Arg Val Leu Ile Ser Asn His Val Thr Pro Phe Asp His Asn Ile Val Asn Leu Leu Thr Thr Cys Ser Thr Val Ser Glu Ser Glu Ala Glu Ser Ala Thr Gly Arg Phe Pro Gly Ala Gln Leu Lys Ala Pro Leu Ser Pro Leu Ala Phe Arg Met Glu Asp Thr Glu Ala Leu Pro Leu Thr Pro Ile Leu Tyr Pro Thr Cys Gln Phe Phe Phe Phe Ile Phe Leu Asn Ile Phe Leu Leu Ala Phe Ser Ser Pro 170 175 Gly Ser Gln Pro Leu Leu Asn Ser Pro Pro Ser Phe Val Cys Trp Ser Arg Gly Phe Met Glu Met Asn Gly Arg Gly Glu Leu Val Glu Ser Leu Lys Arg Phe Cys Ala Ser Thr Arg Leu Pro Pro Thr Pro Leu Leu Leu Phe Pro Glu Glu Glu Ala Thr Asn Gly Arg Glu Gly Leu Leu Arg Phe Ser Ser Trp Pro Phe Ser Ile Gln Asp Val Val Gln Pro Leu Thr Leu Gln Val Gln Arg Thr Leu Val Ser Val Thr Val Ser Asp Ala Ser Trp Val Ser Glu Leu Leu Trp Ser Leu Phe Val Pro Phe Thr Val Tyr Gln Val Arg Trp Leu Arg Pro Val His Arg Gln Leu Gly Glu Ala Asn Glu Glu Phe Ala Leu Arg Val Gln Gln Leu Val Ala Lys Glu Leu Gly Gln Thr Gly Thr Arg Leu Thr Pro Ala Asp Lys Ala Glu His Met Lys Arg Gln Arg His Pro Arg Leu Arg Pro Gln Ser Ala Gln Ser Ser Phe Pro Pro Ser Pro Trp Val Leu Ser Ser Ser Asp Val Gln Thr Gly Gln Thr Leu Gly Phe Arg Glu Phe Lys Glu Ser Phe Cys Pro His Val Ala Ile Gly Val Phe Ile Pro Glu Arg Pro Trp Pro Lys Thr Gly Cys Cys Lys Thr Leu Thr Ile His Leu Ile Leu Leu Xaa Gly Gly Pro Val Ser Phe Ser Cys Pro Glu Asp Ile His Pro Arg Gly Thr Xaa Val Pro Thr Gln Gln Ala Ser Gly Leu Pro Ser Phe Pro Ser Tyr Gly Pro Ala Arg Gly Gly Val Leu Xaa His Pro Ser Ala Gln Gln Pro Leu Thr Phe Ala Lys Ser Ser Trp Ala Arg Ala Gly Arg Ala Leu Gln Glu Arg Lys Gln Ala 

Leu Tyr Glu Tyr Ala Arg Arg Phe Thr Glu Arg Arg Ala Pro Gly
485
490
495
Gly Leu Asp
499

<210> 1753 <211> 134 <212> PRT <213> Homo sapiens

<400> 1753 Asp Pro Ser Pro Ser Leu Leu Ala Val Ala Leu Gly Leu Arg Ala Gly 10 Glu Arg Thr Arg Ser Gly Pro Gly Ser Ser Ser Pro Ser Gly Gly Ile 25 20 Ser Gly Gly Ala Ser Ala Gly Leu Ala Ser Ser Pro Glu Cys Ala Cys 35 40 45 Gly Arg Ser His Phe Thr Cys Ala Val Ser Ala Leu Gly Glu Cys Thr 55 Cys Ile Pro Ala Gln Trp Gln Cys Asp Gly Asp Asn Asp Cys Gly Asp 70 His Ser Asp Glu Asp Gly Cys Ile Leu Pro Thr Cys Ser Pro Leu Asp 85 90 Phe His Cys Asp Asn Gly Lys Cys Ile Arg Arg Ser Trp Val Cys Asp 100 105 110 Ser Asp Asn Asp Cys Glu Asp Asp Ser Asp Glu Gln Asp Cys Pro Pro Arg Glu Cys Glu Glu Asp 130 134

<210> 1754 <211> 136 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(136) <223> Xaa = any amino acid or nothing

<400> 1754 Pro Arg His Gly Trp Gly Arg Arg Val Leu Gly Arg Asp Arg Pro Arg 10 Leu Gln Lys Val Lys Lys Ser Val Lys Ala Ile Tyr Ile Pro Gly Gln 20 25 Asp His Val Gln Asn Glu Glu Ile Tyr Ala Arg Val Leu Asp Lys Phe 40 Gly Ser Asn Phe Leu Ser Arg Asp Asn Ala Asp Leu Gly Thr Ala Phe 55 60 Val Lys Phe Ser Thr Leu Thr Lys Kaa Leu Ser Ala Leu Leu Lys Asn 70 75 Leu Leu Gln Gly Leu Ser Arg Asn Val Ile Phe Thr Leu Asp Ser Leu 85 Leu Lys Gly Asp Leu Lys Gly Val Lys Gly Asp Leu Lys Lys Pro Phe 100 105 Asp Lys Ala Trp Lys Asp Tyr Glu Thr Lys Phe Ala Lys Ile Glu Lys 120 125 Glu Lys Arg Glu Arg Glu Trp Arg

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<210> 1755
<211> 149
<212> PRT
<213> Homo sapiens
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<400> 1755 Ala Ala Val Pro Val Glu Asn Pro Trp Asp Asp Pro Arg Val Arg Pro 10 Arg Val Arg Ile Phe Thr Trp Glu Asp Cys Ile Ala Gly Gln Ala Lys 25 20 Val Leu Cys Asn Asp Ser Tyr Gly Val Thr Ile Asp Trp Ser Pro Lys 35 40 Gly Ala Phe Ile Arg Leu Thr Ser Gln Ser Val Gly Asn Gly His Pro 50 55 60 Ala Ser Lys Glu Asn Asp Gln Met Val Asp Thr Ile Lys Asn Thr Thr 70 75 Lys Val Pro Ile Ile Trp Thr Tyr Gly Asp Met Val Glu Pro Arg Pro 85 90 95 Gln Met Ile Arg Pro Ala Val Gly Ala Lys His Lys Glu Leu Trp Lys 100 105 110 Ile Leu Met Ala Leu Lys Lys Ile Lys Ile Trp Glu Gly Lys Tyr Thr 115 120 125 Lys Pro Ser Gln Tyr Asn Pro Asn Tyr Met Leu Glu Leu Ala His Asn 135 140 130 Asp Ser Val Trp 145 148

<210> 1756 <211> 142 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(141)

<223> Xaa = any amino acid or nothing

<400> 1756 Leu Ser Met Leu Ser Thr Ile Ser Thr Glu His Arg Leu Ser Val Leu 1 5 . 10 Trp Pro Ile Trp Tyr Cys Cys His Cys Pro Thr His Leu Ser Ala Val 25 20 Met Cys Val Leu Leu Trp Ala Leu Ser Leu Leu Gln Ser Ile Leu Glu 45 35 40 Trp Met Phe Cys Ser Phe Leu Phe Ser Asp Val Asp Ser Asp Asn Trp 55 60 Cys Gln Ile Leu Asp Phe Leu Thr Ala Val Trp Leu Ile Phe Leu Ile
70 75 80 75 70 65 Leu Val Leu Cys Gly Phe Thr Leu Val Leu Leu Val Arg Ile Ile Cys 85 90 Gly Ser Gln Lys Met Pro Leu Thr Arg Leu Tyr Val Thr Ile Leu Leu 100 105 110 Thr Gly Leu Val Phe Leu Phe Cys Ser Leu Pro Leu Ser Ile Gln Xaa 120 125 115 Phe Leu Leu Tyr Trp Ile Glu Lys Asp Leu Asp Asp Leu

135

<210> 1757 <211> 542 <212> PRT <213> Homo sapiens

<400> 1757 Ser Gly Asp Leu Ser Pro Ala Glu Leu Met Met Leu Thr Ile Gly Asp 10 Val Ile Lys Gln Leu Ile Glu Ala His Glu Gln Gly Lys Asp Ile Asp 20 25 Leu Asn Lys Val Lys Thr Lys Thr Ala Ala Lys Tyr Gly Leu Ser Ala 35 40 Gln Pro Arg Leu Val Asp Ile Ile Ala Ala Val Pro Pro Gln Tyr Arg 55 Lys Val Leu Met Pro Lys Leu Lys Ala Lys Pro Ile Arg Thr Ala Ser 75 Gly Ile Ala Val Val Ala Val Met Cys Lys Pro His Arg Cys Pro His 85 90 Ile Ser Phe Thr Gly Asn Ile Cys Val Tyr Cys Pro Gly Gly Pro Asp 110 100 105 Ser Asp Phe Glu Tyr Ser Thr Gln Ser Tyr Thr Gly Tyr Glu Pro Thr 115 120 125 120 Ser Met Arg Ala Ile Arg Ala Arg Tyr Asp Pro Phe Leu Gln Thr Arg 135 His Arq Ile Glu Gln Leu Lys Gln Leu Gly His Ser Val Asp Lys Val 150 155 Glu Phe Ile Val Met Gly Gly Thr Phe Met Ala Leu Pro Glu Glu Tyr 175 165 170 Arg Asp Tyr Phe Ile Arg Asn Leu His Asp Ala Leu Ser Gly His Thr 185 190 180 Ser Asn Asn Ile Tyr Glu Ala Val Lys Tyr Ser Glu Arg Ser Leu Thr 200 195 Lys Cys Ile Gly Ile Thr Ile Glu Thr Arg Pro Asp Tyr Cys Met Lys 215 220 Arg His Leu Ser Asp Met Leu Thr Tyr Gly Cys Thr Arg Leu Glu Ile 235 240 230 Gly Val Gln Ser Val Tyr Glu Asp Val Ala Arg Asp Thr Asn Arg Gly 250 245 His Thr Val Lys Ala Val Cys Glu Ser Phe His Leu Ala Lys Asp Ser 265 260 Gly Phe Lys Val Val Ala His Met Met Pro Asp Leu Pro Asn Val Gly 280 285 Leu Glu Arg Asp Ile Glu Gln Phe Thr Glu Phe Phe Glu Asn Pro Ala 295 300 Phe Arg Pro Asp Gly Leu Lys Leu Tyr Pro Thr Leu Val Ile Arg Gly 310 315 Thr Gly Leu Tyr Glu Leu Trp Lys Ser Gly Arg Tyr Lys Ser Tyr Ser 330 325 Pro Ser Asp Leu Val Glu Leu Val Ala Arg Ile Leu Ala Leu Val Pro 350 345 Pro Trp Thr Arg Val Tyr Arg Val Gln Arg Asp Ile Pro Met Pro Leu 355 360 Val Ser Ser Gly Val Glu His Gly Asn Leu Arg Glu Leu Ala Leu Ala 375 380 370 Arg Met Lys Asp Leu Gly Ile Gln Cys Arg Asp Val Arg Thr Arg Glu 390 395 Val Gly Ile Gln Glu Ile His His Lys Val Arg Pro Tyr Gln Val Glu 410 405 Leu Val Arg Arg Asp Tyr Val Ala Asn Gly Gly Trp Glu Thr Phe Leu 425 420 Ser Tyr Glu Asp Pro Asp Gln Asp Ile Leu Ile Gly Leu Leu Arg Leu 440

Arg Lys Cys Ser Glu Glu Thr Phe Arg Phe Glu Leu Gly Gly Gly Val 450 455 Ser Ile Val Arg Glu Leu His Val Tyr Gly Ser Val Val Pro Val Ser 470 475 Ser Arg Asp Pro Thr Lys Phe Gln His Gln Gly Phe Gly Met Leu Leu 485 490 495 Met Glu Glu Ala Glu Arg Ile Ala Arg Glu Glu His Gly Ser Gly Lys 505 510 500 Ile Ala Val Ile Ser Gly Val Gly Thr Arg Asn Tyr Tyr Arg Lys Ile 520 . 525 Gly Tyr Arg Leu Gln Gly Pro Tyr Met Val Lys Met Leu Lys 540 535

<210> 1758 <211> 158 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(155) <223> Xaa = any amino acid or nothing

<400> 1758 Ala Ile Ala Ser Pro Arg Ala Ala Gly Ile Arg His Glu Leu Thr Ser Thr Met Ala Ala Gly Lys Asn Lys Arg Leu Thr Lys Gly Gly Lys Lys 20 25 Gly Ala Lys Lys Lys Ala Val Asp Asn Ile Ile Asn Ile Gly Lys Thr 35 40 45 Leu Val Thr Arg Thr Gln Arg Thr Lys Ile Ala Ser Asp Gly Leu Lys 55 60 Gly Arg Val Phe Glu Glu Ser Leu Ala Asp Leu Gln Asn Asp Thr Asp 70 75 Gly Tyr Leu Leu Arg Val Ile Xaa Val Ala Phe Thr Thr Glu Arg Thr 85 90 Asn Gln Ile Arg Glu Val Phe Asn Lys Leu Ile Pro Asp Ser Ile Gly 100 105 Lys Asp Ile Glu Lys Ala Cys Gln Ser Ile Tyr Pro Leu His Asp Asp 120 125 115 Phe Ala Arg Lys Val Lys Met Leu Lys Lys Pro Lys Phe Glu Leu Arg 135 140 Lys Leu Met Glu Leu His Gly Glu Gly Ser Ser 145 150

<210> 1759 <211> 417 <212> PRT <213> Homo sapiens

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Lys Gly Ile Arg Ala Arg Ile Leu Glu Thr Leu Gly Met Leu Leu
                   70
Leu Ala Leu Leu Ile Leu Gly Ile Val Trp Val Ala Ser Ala Leu Ile
               85
                                 90
Asp Asn Asp Ala Ala Ser Met Glu Ser Leu Tyr Asp Leu Trp Glu Phe
          100
                            105
                                              110
Tyr Leu Pro Tyr Leu Tyr Ser Cys Ile Ser Leu Met Gly Cys Leu Leu
                       120 125
      115
Leu Leu Cys Thr Pro Val Gly Leu Ser Arg Met Phe Thr Val Met
                     135
                                       .140
Gly Gln Leu Leu Val Lys Pro Thr Ile Leu Glu Asp Leu Asp Glu Gln
                 150
                                    155
Ile Tyr Ile Ile Thr Leu Glu Glu Glu Ala Leu Gln Arg Pro Thr Lys
             165
                              170
Trp Ala Val Phe Ile Arg Trp Lys Tyr Asn Ile Met Glu Leu Glu Gln
                          185
Glu Leu Glu Asn Val Lys Thr Leu Lys Thr Lys Leu Glu Arg Arg Lys
                         200
                                          205
     195
Lys Ala Ser Ala Trp Glu Arg Asn Leu Val Tyr Pro Ala Val Met Val
                    215
                                       220
Leu Leu Ile Glu Thr Ser Ile Ser Val Leu Leu Val Ala Cys Asn
                 230
                                    235
Ile Leu Cys Leu Leu Val Asp Glu Thr Ala Met Pro Lys Gly Thr Arg
              245
                                250
                                                   255
Gly Pro Gly Ile Gly Asn Ala Ser Leu Ser Thr Phe Gly Phe Val Gly
                                               270
          260
                            265
Ala Ala Leu Glu Ile Ile Leu Ile Phe Tyr Leu Met Val Ser Ser Val
                        280
                                           285
Val Gly Phe Tyr Ser Leu Arg Phe Phe Gly Asn Phe Thr Pro Lys Lys
                     295
                                        300
Asp Asp Thr Thr Met Thr Lys Ile Ile Gly Asn Cys Val Ser Ile Leu
                                    315
                 310
Val Leu Ser Ser Ala Leu Pro Val Met Ser Arg Thr Leu Gly Ile Thr
              325
                                330
Arg Phe Asp Leu Leu Gly Asp Phe Gly Arg Phe Asn Trp Leu Gly Asn
          340
                            345
Phe Tyr Ile Val Leu Ser Tyr Asn Leu Leu Phe Ala Ile Val Thr Thr
                       360
                                         365
    355
Leu Cys Leu Val Arg Lys Phe Thr Ser Ala Val Arg Glu Glu Leu Phe
 370
                             380
           375
Lys Ala Leu Gly Leu His Lys Leu His Leu Pro Asn Thr Ser Arg Asp
                           395
                 390
Ser Glu Thr Ala Lys Pro Ser Val Asn Gly His Gln Lys Ala Leu
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<210> 1760

<211> 437

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(435)

<223> Xaa = any amino acid or nothing
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Ala Lys Lys Ala Ala Ser Lys Thr Leu Leu Glu Lys Ser Gln Phe Ser
          . 55
                                     60
Asp Lys Pro Val Gln Asp Arg Gly Leu Val Val Thr Asp Leu Lys Ala
65
              70
                               75
Glu Ser Val Val Leu Glu His Arg Ser Tyr Cys Ser Ala Lys Ala Arg
             85
                              90
Asp Arg His Phe Ala Gly Asp Val Leu Gly Tyr Val Thr Pro Trp Asn
         100
                         105
                                         110
Ser His Gly Tyr Asp Val Thr Lys Val Phe Gly Ser Lys Phe Thr Gln
                     120
                                     125
Ile Ser Pro Val Trp Leu Gln Leu Lys Arg Arg Gly Arg Glu Met Phe
                                  140
  130
                 135
Glu Val Thr Gly Leu His Asp Val Asp Gln Gly Trp Met Arg Ala Val
             150 155
Arg Lys His Ala Lys Gly Leu Pro Xaa Cys Leu Gly Ser Cys Leu Arg
            165
                    170
Thr Gly Leu Thr Met Ile Ser Gly Tyr Val Leu Asp Ser Glu Asp Glu
         180
                          185
                                          190
Ile Glu Glu Leu Ser Lys Thr Val Val Gln Val Ala Lys Asn Gln His
          200 205
     195
Phe Asp Gly Phe Val Val Glu Val Trp Asn Gln Leu Leu Ser Gln Lys
          215 220
Arg Val Gly Leu Ile His Met Leu Thr His Leu Ala Glu Ala Leu His
                        235
225
      230
Gln Ala Arg Leu Leu Ala Leu Leu Val Ile Pro Pro Ala Ile Thr Pro
            245
                            250
Gly Thr Asp Gln Leu Gly Met Phe Thr His Lys Glu Phe Glu Gln Leu
                        265
         260
                                        270
Ala Pro Val Leu Asp Gly Phe Ser Leu Met Thr Tyr Asp Tyr Ser Thr
     275 280 285
Ala His Gln Pro Gly Pro Asn Ala Pro Leu Ser Trp Val Arg Ala Cys
          295 300
Val Gln Val Leu Asp Pro Lys Ser Lys Trp Arg Ser Lys Ile Leu Leu 305 310 315 320
Gly Leu Asn Phe Tyr Gly Met Asp Tyr Ala Thr Ser Lys Asp Ala Arg
            325
                             330
Glu Pro Val Val Gly Ala Arg Tyr Ile Gln Thr Leu Lys Asp His Arg
         340
                          345
                                          350
Pro Arg Met Val Trp Asp Ser Gln Val Ser Glu His Phe Phe Glu Tyr
 355 360 365
Lys Lys Ser Arg Ser Gly Arg His Val Val Phe Tyr Pro Thr Leu Lys
            375 380
Ser Leu Gln Val Arg Leu Glu Leu Ala Arg Glu Leu Gly Val Gly Val 385 390 395 400
Ser Ile Trp Glu Leu Gly Gln Gly Leu Asp Tyr Phe Tyr Asp Leu Leu
                             410
Xaa Val Gly Ile Ala Ala Ser Ala Val Asp Val Phe Phe Ser Lys Pro
                 425
Trp Ser Glu
    435
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<210> 1761 <211> 876 <212> PRT <213> Homo sapiens

<400> 1761
Val Ala Thr Arg Lys Leu Ala Lys Gly Phe Thr Gln Phe Ala Lys Met
1 5 10 15
Thr Glu Gly Thr Lys Lys Thr Ser Lys Lys Phe Lys Phe Phe Lys Phe
20 25 30

Lys Gly Phe Gly Ser Phe Ser Asn Leu Pro Arg Ser Phe Thr Leu Arg Arg Ser Ser Ala Ser Ile Ser Arg Gln Ser His Leu Glu Pro Asp Thr Phe Glu Ala Thr Gln Asp Asp Met Val Thr Val Pro Lys Ser Pro Pro Ala Tyr Ala Arg Ser Ser Asp Met Tyr Ser His Met Gly Thr Met Pro Arg Pro Ser Ile Lys Lys Ala Gln Asn Ser Gln Ala Ala Arg Gln Ala Gln Glu Ala Gly Pro Lys Pro Asn Leu Val Pro Gly Gly Val Pro Asp Pro Pro Gly Leu Glu Ala Ala Lys Glu Val Met Val Lys Ala Thr Gly Pro Leu Glu Asp Thr Pro Ala Met Glu Pro Asn Pro Ser Ala Val Glu Val Asp Pro Ile Arg Lys Pro Glu Val Pro Thr Gly Asp Val Glu Glu Glu Arg Pro Pro Arg Asp Val His Ser Glu Arg Ala Ala Gly Glu Pro Glu Ala Gly Ser Asp Tyr Val Lys Phe Ser Lys Glu Lys Tyr Ile Leu Asp Ser Ser Pro Glu Lys Leu His Lys Glu Leu Glu Glu Glu Leu Lys Leu Ser Ser Thr Asp Leu Arg Ser His Ala Trp Tyr His Gly Arg Ile Pro Arg Glu Val Ser Glu Thr Leu Val Gln Arg Asn Gly Asp Phe Leu Ile Arg Asp Ser Leu Thr Ser Leu Gly Asp Tyr Val Leu Thr Cys Arg Trp Arg Asn Gln Ala Leu His Phe Lys Ile Asn Lys Val Val Val Lys Ala Gly Glu Ser Tyr Thr His Ile Gln Tyr Leu Phe Glu Gln Glu Ser Phe Asp His Val Pro Ala Leu Val Arg Tyr His Val Gly Ser Arg Lys 305 310 315 320 Ala Val Ser Glu Gln Ser Gly Ala Ile Ile Tyr Cys Pro Val Asn Arg Thr Phe Pro Leu Arg Tyr Leu Glu Ala Ser Tyr Gly Leu Gly Gln Gly Ser Ser Lys Pro Ala Ser Pro Val Ser Pro Ser Gly Pro Lys Gly Ser His Met Lys Arg Arg Ser Val Thr Met Thr Asp Gly Leu Thr Ala Asp Lys Val Thr Arg Ser Asp Gly Cys Pro Thr Ser Thr Ser Leu Pro Arg Pro Arg Asp Ser Ile Arg Ser Cys Ala Leu Ser Met Asp Gln Ile Pro Asp Leu His Ser Pro Met Ser Pro Ile Ser Glu Ser Pro Ser Ser Pro Ala Tyr Ser Thr Val Thr Arg Val His Ala Ala Pro Ala Ala Pro Ser Ala Thr Ala Leu Pro Ala Ser Pro Val Ala Arg Arg Ser Ser Glu Pro Gln Leu Cys Pro Gly Ser Ala Pro Lys Thr His Gly Glu Ser Asp Lys Gly Pro His Thr Ser Pro Ser His Thr Leu Gly Lys Ala Ser Pro Ser Pro Ser Leu Ser Ser Tyr Ser Asp Pro Asp Ser Gly His Tyr Cys Gln Leu Gln Pro Pro Val Arg Gly Ser Arg Glu Trp Ala Ala Thr Glu Thr - 515 Ser Ser Gln Gln Ala Arg Ser Tyr Gly Glu Arg Leu Lys Glu Leu Ser

```
Glu Asn Gly Ala Pro Glu Gly Asp Trp Gly Lys Thr Phe Thr Val Pro
         550 555
Ile Val Glu Val Thr Ser Ser Phe Asn Pro Ala Thr Phe Gln Ser Leu
             565 570
Leu Ile Pro Arg Asp Asn Arg Pro Leu Glu Val Gly Leu Leu Arg Lys
                          585
                                          590
Val Lys Glu Leu Leu Ala Glu Val Asp Ala Arg Thr Leu Ala Arg His
      595
                      600
                                        605
Val Thr Lys Val Asp Cys Leu Val Ala Arg Ile Leu Gly Val Thr Lys
                                    620
           615
Glu Met Gln Thr Leu Met Gly Val Arg Trp Gly Met Glu Leu Leu Thr
         630
                       635
Leu Pro His Gly Arg Lys Leu Arg Leu Asp Leu Leu Glu Arg Phe His
                    650 655
             645
Thr Met Ser Ile Met Leu Ala Val Asp Ile Leu Gly Cys Thr Gly Ser
                         665
                                            670
        660
Ala Glu Glu Arg Ala Ala Leu Leu His Lys Thr Ile Gln Leu Ala Ala
                                        685
                      680
     675
Glu Leu Arg Gly Thr Met Gly Asn Met Phe Ser Phe Ala Ala Val Met
           695
                            700
Gly Ala Leu Asp Met Ala Gln Ile Ser Arg Leu Glu Gln Thr Trp Val
                       715 720
         710
Thr Leu Arg Gln Arg His Thr Glu Gly Ala Ile Leu Tyr Glu Lys Lys
725 730 735
Leu Lys Pro Phe Leu Lys Ser Leu Asn Glu Gly Lys Glu Gly Pro Pro
                          745
Leu Ser Asn Thr Thr Phe Pro His Val Leu Pro Leu Ile Thr Leu Leu
                                        765
      755
            760
Glu Cys Asp Ser Ala Pro Pro Glu Gly Pro Glu Pro Trp Gly Ser Thr
           775
                              780
Glu His Gly Val Glu Val Val Leu Ala His Leu Glu Ala Ala Arg Thr
785 790 795 800
Val Ala His His Gly Gly Leu Tyr His Thr Asn Ala Glu Val Lys Leu
805 810 815
            805
Gln Gly Phe Gln Ala Arg Pro Glu Leu Leu Glu Val Phe Ser Thr Glu
                          825
        820
Phe Gln Met Arg Leu Leu Trp Gly Ser Gln Gly Ala Ser Ser Ser Gln
                       840
      835
                                        845
Ala Arg Arg Tyr Glu Lys Phe Asp Lys Val Leu Thr Ala Leu Ser His
                   855
                             860
Lys Leu Glu Pro Ala Val Arg Ser Ser Glu Leu
                870
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<210> 1762 <211> 299 <212> PRT

<213> Homo sapiens

<221> misc_feature <222> (1) ... (299) <223> Xaa = any amino acid or nothing

Pro Ile Thr Leu His Leu Leu Pro Asp Arg Asp Asn Asp Lys Ser Leu 70 Arg Gln Phe Arg Tyr Thr Phe Gln Ala Cys Leu Xaa Glu Leu Leu Lys 85 90 Arg Leu Cys Asn Arg Thr Ala Leu Met Phe Val Ala Val Ala Gly Leu 100 105 110 Thr Phe Phe Ala Leu Ser Phe Gly Phe Tyr Tyr Glu Tyr Gly Trp Glu 120 115 Phe Leu Glu His Thr Tyr Phe Tyr His Leu Thr Arg Arg Asp Ile Arg 135 140 His Asn Phe Ser Pro Tyr Phe Tyr Met Leu Tyr Leu Thr Ala Glu Ser 150 155 160 Lys Trp Ser Phe Ser Leu Gly Ile Ala Ala Phe Leu Pro Gln Leu Ile 165 170 Leu Leu Ser Ala Val Ser Phe Ala Tyr Tyr Arg Asp Leu Val Phe Cys 180 185 Trp Phe Leu His Thr Ser Ile Phe Val Thr Phe Asn Lys Val Cys Thr 200 205 Ser Gln Tyr Phe Leu Trp Tyr Leu Cys Leu Leu Pro Leu Val Met Pro 215 220 Leu Val Arg Met Pro Trp Lys Arg Ala Val Val Leu Leu Met Leu Trp 230 235 Phe Ile Gly Gln Ala Met Trp Leu Ala Pro Ala Tyr Val Leu Glu Phe 245 250 255 245 250 Gln Gly Lys Asn Thr Phe Leu Phe Ile Trp Leu Ala Gly Leu Phe Phe 260 265 Leu Leu Ile Asn Cys Ser Ile Leu Ile Gln Ile Ile Ser His Tyr Lys 280 Glu Glu Pro Leu Thr Glu Arg Ile Lys Tyr Asp 295 290

<210> 1763 <211> 158 <212> PRT <213> Homo sapiens

<221> misc_feature

<222> (1)...(157)
<223> Xaa = any amino acid or nothing

<400> 1763 Pro Ile Pro Val Arg Trp Asn Ser Leu Glu Gly Arg Leu Leu Arg Gly 10 Tyr Glu Gln His Ala Asn Asp Gly Lys Asp Tyr Ile Ser Arg Asn Xaa 20 25 Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys 35 40 Arg Lys Trp Glu Ala Glu Glu Phe Ala Glu Gln Ile Lys Ala Tyr Leu 55 60 Glu Gly Thr Cys Val Glu Arg Leu Arg Thr His Leu Glu Asn Gly Lys 75 70 Glu Thr Leu Gln Leu Thr Glu Gln Ser Ser Gln Pro Thr Ile Pro Ile 85 · 90 Val Gly Ile Val Ala Gly Leu Val Leu Gly Ala Val Val Thr Gly
100 105 110 110 100 Ala Val Val Ser Ala Val Met Cys Arg Lys Lys Asn Ser Gly His Phe 115 120 125 Leu Pro Thr Asp Arg Val Ser Tyr Ser Glu Ala Ala Ser Ser Asp His 135 140 Ala Gln Gly Ser Asp Val Ser Leu Thr Ala Cys Lys Val 150 155 157

<210> 1764 <211> 346 <212> PRT <213> Homo sapiens

<400> 1764 His Gln Ile Leu Glu Leu Lys Lys Lys Ile Leu Lys Thr Tyr Asn Pro 5 10 Asp Tyr Asp Glu Asp Leu Val Gln Glu Ala Ser Ser Glu Asp Val Leu 20 25 Gly Val His Met Val Asp Lys Asp Thr Glu Arg Asp Ile Glu Met Lys 40 45 Arg Gln Leu Arg Arg Leu Arg Glu Leu His Leu Tyr Ser Thr Trp Lys 55 Lys Tyr Gln Glu Ala Met Lys Thr Ser Leu Gly Val Pro Gln Arg Glu 70 75 Arg Asp Glu Gly Ser Leu Gly Lys Pro Leu Cys Pro Pro Glu Ile Leu 85 90 95 Ser Glu Thr Leu Pro Gly Ser Val Lys Lys Arg Val Cys Phe Pro Ser 100 105 110 Glu Asp His Leu Glu Glu Phe Ile Ala Glu His Leu Pro Glu Ala Ser 120 125 Asn Gln Ser Leu Leu Thr Val Ala His Ala Asp Ala Gly Thr Gln Thr 130 135 140 Asn Gly Asp Leu Glu Asp Leu Glu Glu His Gly Pro Gly Gln Thr Val 150 155 Ser Glu Glu Ala Thr Glu Val His Met Met Glu Gly Asp Pro Asp Thr 165 170 175 Leu Ala Glu Leu Leu Ile Arg Asp Val Leu Gln Glu Leu Ser Ser Tyr 180 185 190 Asn Gly Glu Glu Glu Asp Pro Glu Glu Val Lys Thr Ser Leu Gly Val 195 200 205 Pro Gln Arg Gly Asp Leu Glu Asp Leu Glu Glu His Val Pro Gly Gln 210 '215 220 Thr Val Ser Glu Glu Ala Thr Gly Val His Met Met Gln Val Asp Pro 230 235 Ala Thr Leu Ala Lys Ser Asp Leu Glu Asp Leu Glu Glu His Val Pro 245 250 255 Glu Gln Thr Val Ser Glu Glu Ala Thr Gly Val His Met Met Gln Val 265 270 Asp Pro Ala Thr Leu Ala Lys Gln Leu Glu Asp Ser Thr Ile Thr Gly 280 285 Ser His Gln Gln Met Ser Ala Ser Pro Ser Ser Ala Pro Ala Glu Glu 295 Ala Thr Glu Lys Thr Lys Val Glu Glu Glu Val Lys Thr Arg Lys Pro 310 315 Lys Lys Lys Thr Arg Lys Pro Ser Lys Lys Ser Arg Trp Asn Val Leu 325 330 Lys Cys Trp Asp Ile Phe Asn Ile Phe . 340 345

<210> 1765 <211> 39 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(39)

<223> Xaa = any amino acid or nothing

<210> 1766
<211> 204
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(203)
<223> Xaa = any amino acid or nothing

<400> 1766 Arg Gln Glu Lys Met Gly Leu Gly Glu Ile Gly Ala Ser Gly Val Leu 5 10 Arg Ser Met Leu Lys Glu Arg Lys Lys Gln Asn Met Lys Gly Asn Gly Asn Val Thr Leu Thr Pro Leu Leu Pro Ala Val Gln Cys Gly Cys His 35 40 Leu Gln Pro Ala Gly Arg Ser Pro Leu Pro Ser Ser His Ser Ala Pro . 55 60 Gly Leu Cys Ser Pro Leu His Pro Leu Gln Pro Gln Gln Glu Ala Ser 65 70 Thr Cys Pro Ser Gly Thr Leu Gln Gly Arg Glu Lys Ala Ala Pro Gly Gln Gly Arg Pro Leu Cys Ser Leu Trp Ala Gly Gly Ala Gly Ala Pro 100 105 110 Gly Glu Arg Gly Ala Glu Gly Arg Gly Pro Ser Asp Gln Ala Pro Asp . 115 120 125 Pro Lys Ser Gly Pro Trp Leu Phe Pro Pro Gly Leu Gly Ala Pro Ala 135 140 Glu Val Arg Leu His Asn Val Pro His Asn Leu Arg Arg Pro Pro Leu 150 155 160 Pro Xaa Ala Arg Gly Lys Xaa Pro Pro Asn Ser Gly Cys Pro Trp Ser 165 170 175 Glu Gly Arg Ala Lys Gln Pro Leu Ser Cys Gly Pro Lys Pro Gln Cys 180 185 Ser Leu Pro Ser Gln Val Pro Gly Asp Thr His 195 200 203

<210> 1767 <211> 696 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) . . (686) <223> Xaa = any amino acid or nothing

<400> 1767

Glu Ala Gln Asp Pro Arg Ala Cys Gly Pro Asp Ala Gly Gly Arg Phe Ala Ala Arg Asp Ala Pro Gly Asn Ser Leu Arg Pro Pro Pro Ser Ser Pro Pro Gly Trp Pro Gly Gln Leu Arg Leu Leu Pro Arg Val Pro Gly Ser Glu Leu Arg Cys Gly Lys Pro Glu Arg Gly Arg Leu Pro Ala Ser Pro Pro Gly Lys Ile Arg Gly Trp Pro Pro Gly Ile Ser Lys Arg Pro Gly Leu Gly Gly Arg Ser Phe Pro Pro Gly Phe Ala Pro Arg Thr Trp Arg Pro Glu Ala Arg Gly Pro Ser Val Gln Ser Leu Pro Pro Ile Phe Ser Pro Gln Ser Ala Gln Thr Thr Ala Arg Kaa Arg Pro Gly Ala Pro Lys Asn Ala Gly Arg Cys Gly Gly Ala Arg Gly Pro Arg Leu Ser Leu Gly Pro Pro Pro Gly Pro Pro Pro Ala Pro Ala Leu Pro Ala Arg Ala Ser Ala Gly Ala Gly Ala Ala Ala Ala Ala Leu Ala Val Gly Gly Val Arg Gly Ala Gly Gly Ala Arg Gly Thr Gly Gly Tyr Gly His Cys Ser Gly Arg Pro Thr Gly Arg Thr Gly Pro Gly Pro Gln Gly Pro Gly Pro Pro Met Pro Ala Arg Pro Arg Kaa Ala Ser Ser Thr Arg Gly Ser Arg Arg Gly Pro Gly Ser Arg Pro Ala Arg Ala Ala Ala Pro Arg Ala Gly Asp His Gly Arg Arg Pro Val Arg Val His Leu Arg Gln His Thr Ala Val Xaa Glu Pro Arg Leu Gly Asp Ala Thr Ala Pro Pro Gly Gly Ala Ala Gly Pro Gly Ala Pro Ala Pro Arg Gly Pro Gly Trp Asp Cys Ala Leu Leu Pro Ser Pro Gly Pro Arg Ser Pro Arg Ala Val Gly Cys Ala Glu Pro Glu Ile Trp Asp Pro Ser Pro Arg Arg Gly Thr Ser Pro Val Pro Ser Val Arg Ser Leu Arg Ser Glu Pro Ala Asn Pro Arg Leu 330 335 Gly Leu Pro Ala Leu Leu Asn Ser Tyr Pro Leu Lys Gly Pro Gly Leu Pro Pro Pro Trp Gly Pro Arg Thr Gln Thr Gly His Val Ile Ile Thr Val Gln Pro Ser Gly Ser Cys Ile Glu His Ser Lys Ser Leu Asp Arg Gly Pro Trp Gly Ala Pro Pro Trp Gly Pro Ser Ser Ser Gly Leu Cys Ser Pro Lys Leu Ala Thr Ala Gly Pro Pro Gln Ser Trp Gly Leu Cys Gln Ile Gly Arg Arg Gly Leu Gly Gly Pro Gly Leu Lys Arg Gly Glu Thr Gly Leu Leu Xaa Gly Cys Ser Met Asp His Ala Asn Arg Thr Lys Gly Pro Gly Val Pro Thr Ser Asn Arg Cys Phe Ser His Ile Pro Gly Gly Asp Gly Cys Ser Asp His Ser Ser Cys Glu Gly His Pro Asp Leu His Ala Gly Arg Glu Met Pro Ala Ala Pro Gly Leu Ser Glu Leu Glu Arg Val Arg Phe Thr Val Gly Cys Gly Gly Leu Ala Ser Gly Ile 

Ser Ser Ala Ser Val Ser Gly Leu Ser Pro Asn Arg Ala Gly Gly Pro 520 Gly Gln Gly Asp Trp Glu Met Tyr Pro Val Ser Trp Gln Thr Gln Glu 535 540 Ser Gly Gly Gln Gly Ser Pro Lys Thr Gly Arg Xaa Val Gly Met Leu 550 555 Gln Ala Gly Ala Gly Ser Leu Gln Gly Gly Thr Gly Asp Gly Val Trp
565 570 575 Gly Leu Trp Glu Asp Gly Pro Arg Gly Kaa Asp Ser Pro Leu Pro Ser 585 Gly Thr Gly Thr Glu Pro Xaa Thr Pro Thr Thr Ser Ile Pro Phe Phe 595 600 605 Pro Gln Pro Ser Gly Val Tyr Pro Ser Arg Ala Thr Leu Leu Pro Met 615 620 Pro Ser Tyr Xaa Ala Leu Gly Pro Ser Ala Asn Lys Ser Glu Lys Pro 630 635 Leu Leu Ser Phe Leu Tyr Arg Gly Leu Cys Cys Arg Ile Ser Leu Gln 645 650 Leu Ala Lys Gly Ile Gly Gln Leu Ser Glu Ile Pro Leu Leu Asn Val 665 Glu Thr Ala Phe Trp Ser Met Trp Val Thr Tyr Phe Arg Lys 680

<210> 1768 <211> 606 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(606)

<223> Xaa = any amino acid or nothing

<400> 1768 Glu Glu Glu Glu Glu Glu Asp Glu Asp Asp Asp Asp Asn Asn Glu 10 Glu Glu Glu Phe Glu Cys Tyr Pro Pro Gly Met Lys Val Gln Val Arg 20 Tyr Gly Arg Gly Lys Asn Gln Lys Met Tyr Glu Ala Ser Ile Lys Asp 40 Ser Asp Val Glu Gly Gly Glu Val Leu Tyr Leu Val His Tyr Cys Gly 55 60 Trp Asn Val Arg Tyr Asp Glu Trp Ile Lys Ala Asp Lys Ile Val Arg 70 75 Pro Ala Asp Lys Asn Val Pro Lys Ile Lys His Arg Lys Lys Ile Lys 85 90 Asn Lys Leu Asp Lys Glu Lys Asp Lys Asp Glu Lys Tyr Ser Pro Lys 100 105 Asn Cys Lys Pro Pro Ala Leu Gly Pro Asn Pro Pro Phe Gln Thr Asn 120 Pro Ile Ser Trp Lys Trp Tyr Pro Lys Leu Asp Leu Thr Asp Ala Lys 135 140 Asn Ser Asp Thr Ala His Ile Lys Ser Ile Glu Ile Thr Ser Ile Leu 150 155 Asn Gly Leu Gln Ala Ser Glu Ser Ser Ala Glu Asp Ser Glu Gln Glu 165 170 Asp Glu Arg Gly Ala Gln Asp Met Asp Asn Asn Gly Lys Glu Glu Ser 180 185 Lys Ile Asp His Leu Thr Asn Asn Arg Asn Asp Leu Ile Ser Lys Glu 200 205 Glu Gln Asn Ser Ser Ser Leu Leu Glu Glu Asn Lys Val His Ala Asp 215 220

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Leu Val Ile Ser Lys Pro Val Ser Lys Ser Pro Glu Arg Leu Arg Lys
               230
                               235
Asp Ile Glu Val Leu Ser Glu Asp Thr Asp Tyr Glu Glu Asp Glu Val
                          250
                                             255
            245
Thr Lys Lys Arg Lys Asp Val Lys Lys Asp Thr Thr Asp Lys Ser Ser
                        265
         260
Lys Pro Gln Ile Lys Arg Gly Lys Arg Arg Tyr Cys Asn Thr Glu Glu
                                     285
              280
Cys Leu Lys Thr Gly Ser Pro Gly Lys Lys Glu Glu Lys Ala Lys Asn
        295
                                   300
Lys Glu Ser Leu Cys Met Glu Asn Ser Ser Asn Ser Ser Ser Asp Glu
      310 315
Asp Glu Glu Glu Thr Lys Ala Lys Met Thr Pro Thr Lys Lys Tyr Asn
                                             335
                            330
            325
Gly Leu Glu Glu Lys Arg Lys Ser Leu Arg Thr Thr Gly Phe Tyr Ser
                         345
                                          350
        340
Gly Phe Ser Glu Val Ala Glu Lys Arg Ile Lys Leu Leu Asn Asn Ser
    355 360
Asp Glu Arg Leu Gln Asn Ser Arg Ala Lys Asp Arg Lys Asp Val Trp
        375 380
Ser Ser Ile Gln Gly Gln Trp Pro Lys Lys Thr Leu Lys Glu Leu Phe
               390
                                395
Ser Asp Ser Asp Thr Glu Ala Ala Ala Ser Pro Pro His Pro Ala Pro
                            410
                                             415
            405
Glu Glu Gly Val Ala Glu Glu Ser Leu Gln Thr Val Ala Glu Glu Glu
                                          430
                         425
         420
Ser Cys Ser Pro Ser Val Glu Leu Glu Lys Pro Pro Pro Val Asn Val
                                      445
                     440
      435
Asp Ser Lys Pro Ile Glu Glu Lys Thr Val Glu Val Asn Asp Arg Lys
                          460
                  455
Ala Glu Phe Pro Ser Ser Gly Ser Asn Phe Ser Ala Xaa Ile Pro Leu
                       475 480
             470
Pro Tyr Leu His Leu Asn Arg Leu His Gln Ser Leu Xaa Gln Lys Gly
                                             495
           485
                            490
Ser Arg Gln Gln Ser Ser Val Thr Val Ser Glu Pro Leu Ala Pro Asn
         500 505
Gln Glu Glu Val Arg Ser Ile Lys Ser Glu Thr Asp Ser Thr Ile Glu
              520 525
      515
Val Asp Ser Val Ala Gly Glu Leu Gln Asp Leu Gln Ser Glu Arg Glu
                  535 540
Xaa Leu Ala Ser Arg Phe Xaa Cys Gln Cys Glu Leu Lys Gln Xaa Xaa
               550
                                555
Ser Ala Arg Thr Arg Thr Ser Xaa Lys Ser Leu Tyr Arg Ser Glu Lys
           565 570
Ser Glu Arg Cys Ser Gly Arg Arg Lys Phe Ile Lys Lys Ala Glu Lys
         580
                         585
Lys Pro Xaa Ser Asn Ser Gly Lys Gln Gln Lys Glu Gly Lys
                                      605 606
                       600
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<210> 1769 <211> 86 <212> PRT <213> Homo sapiens

<210> 1770 <211> 109 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (108) <223> Xaa = any amino acid or nothing

<400> 1770 Arg Arg Leu Ser Phe Phe Phe Xaa Ile Trp Ser Ser Val Leu Val Thr 5 10 Gln Ala Arg Val Gln Trp Arg Asp Leu Gly Ser Pro Gln Pro Leu Pro 20 25 30 Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp 40 45 Tyr Arg His Pro Ser Pro Arg Pro Val Asn Phe His Val Phe Leu Val 55 60 Val Met Gly Phe His His Val Gly Gln Ala Gly Leu Glu Leu Leu Thr 70 Ser Gly Asp Leu Pro Ala Leu Ala Ser Gln Ser Ala Arg Ile Thr Gly 90 Val Asn His Cys Ala Gln Pro Arg Gly His Phe His 105

<210> 1771 <211> 324 <212> PRT <213> Homo sapiens

(223) NOMO Bapiem

<400> 1771 Ala Asp Ser Asn Leu Ile Glu Ser Cys Trp Gln Glu Leu Gly Leu Gly 1 5 10 Pro Trp Gly Gly Asp Trp Arg Val Glu Gln Val Gly Ala Ser Ala Ser 25 Leu Arg Phe Pro Arg Glu Val Cys Ser Ile Arg Phe Leu Phe Thr Ala 35 40 Val Ser Leu Leu Ser Leu Phe Leu Ser Ala Phe Trp Leu Gly Leu Leu 60 Tyr Leu Val Ser Pro Leu Glu Asn Glu Pro Lys Glu Met Leu Thr Leu 70 75 Ser Glu Tyr His Glu Arg Val Arg Ser Gln Gly Gln Gln Leu Gln Gln 85 90 Leu Gln Ala Glu Leu Asp Lys Leu His Lys Glu Val Ser Thr Val Arg 100 105 Ala Ala Asn Ser Glu Arg Val Ala Lys Leu Val Phe Gln Arg Leu Asn 120 125 Glu Asp Phe Val Arg Lys Pro Asp Tyr Ala Leu Ser Ser Val Gly Ala 130 135 140 Ser Ile Asp Leu Gln Lys Thr Ser His Asp Tyr Ala Asp Arg Asn Thr 150

Ala Tyr Phe Trp Asn Arg Phe Ser Phe Trp Asn Tyr Ala Arg Pro Pro 165 170 Thr Val Ile Leu Glu Pro His Val Phe Pro Gly Asn Cys Trp Ala Phe 190 185 180 Glu Gly Asp Gln Gly Gln Val Val Ile Gln Leu Pro Gly Arg Val Gln 200 205 195 Leu Ser Asp Ile Thr Leu Gln His Pro Pro Pro Ser Val Glu His Thr 210 215 220 Gly Gly Ala Asn Ser Ala Pro Arg Asp Phe Ala Val Phe Phe Leu Leu 230 235 240 Ser Phe Phe Thr His Gln Gly Leu Gln Val Tyr Asp Glu Thr Glu Val 245 250 Ser Leu Gly Lys Phe Thr Phe Asp Val Glu Lys Ser Glu Ile Gln Thr 260 265 270 Phe His Leu Gln Asn Asp Pro Pro Ala Ala Phe Pro Lys Val Lys Ile 285 275 280 Gln Ile Leu Ser Asn Trp Gly His Pro Arg Phe Thr Cys Leu Tyr Arg 290 295 300 Val Arg Ala His Gly Val Arg Thr Ser Glu Gly Ala Glu Gly Ser Ala 315 310 Gln Gly Pro His

<210> 1772 <211> 144 <212> PRT <213> Homo sapiens

<221> misc_feature
<222> (1)...(141)
<223> Xaa = any amino acid or nothing

<400> 1772 Glu Phe Asp Ala Gln Pro Ser Ile Gly Ala Leu Val Val Phe Lys Arg 5 10 15 Pro Xaa Ala Thr Thr Gly Ser Asp Pro Gly Pro Lys Arg Gly Met Asn 20 25 30 Tyr Leu Val Ser Cys Ser Met Arg Ser Pro Glu Ser Gly Lys Gly Glu 40 45 35 Pro Gly Thr Ala Arg Asp Tyr Thr Pro Met Gly Arg Pro Pro Pro 55 Val Pro Ser Val Ser Pro Gly Pro Leu Pro Gly Ser Leu Ala Ile Ala 70 Pro His Ser Pro Glu Pro His Pro Trp Glu Gln Gln Pro Pro Arg Gly 90 85 Gln Ala Arg Ser Pro Pro Gly Gly Trp Leu Gly Ser Ala Thr Arg Val 100 105 110 Arg Arg Pro His Asn His Pro Arg Gly His His Ser Pro Val Asp Thr 115 120 Ala Gly Ala Pro Ala Ser Pro Gly Pro Asp Val Cys Glu 135 130

<210> 1773 <211> 206 <212> PRT <213> Homo sapiens

<400> 1773

Asp Ala Gln Arg Ala Ile Tyr Ser Ser Val Gly Pro Ala Val Ser Leu 10 Arg Gln Arg Gln Gln Asp Gly Ala Val Lys Glu Ser Gly Arg Arg Gly Gly Val Arg Ser Phe Ser Arg Ala Ala Ala Ala Met Ala Pro Ile Lys 40 Val Gly Asp Ala Ile Pro Ala Val Glu Val Phe Glu Gly Glu Pro Gly 55 Asn Lys Val Asn Leu Ala Glu Leu Phe Lys Gly Lys Lys Gly Val Leu 70 75 Phe Gly Val Pro Gly Ala Phe Thr Pro Gly Cys Ser Lys Thr His Leu 85 90 Pro Gly Phe Val Glu Gln Ala Glu Ala Leu Lys Ala Lys Gly Val Gln 100 105 Val Val Ala Cys Leu Ser Val Asn Asp Ala Phe Val Thr Gly Glu Trp 120 125 Gly Arg Ala His Lys Ala Glu Gly Lys Val Arg Leu Leu Ala Asp Pro 135 140 Thr Gly Ala Phe Gly Lys Glu Thr Asp Leu Leu Leu Asp Asp Ser Leu 150 155 Val Ser Ile Phe Gly Asn Arg Arg Leu Lys Arg Phe Ser Met Val Val 165 170 Gln Asp Gly Ile Val Lys Ala Leu Asn Val Glu Pro Asp Gly Thr Gly 180 185 190 Leu Thr Cys Ser Leu Ala Pro Asn Ile Ile Ser Gln Leu 200

<211> 2565 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(2560) <223> Xaa = any amino acid or nothing

<210> 1774

<400> 1774 Arg Gln Val Thr Arg Val Gly Thr Arg Val Leu Gly Ser Thr Thr Ala Ala Val Phe Leu Ser Val Glu Asp Asp Asn Asp Asn Ala Pro Gln Phe 25 Ser Glu Lys Arg Tyr Val Val Gln Val Arg Glu Asp Val Thr Pro Gly 40 Ala Pro Val Leu Arg Val Thr Ala Ser Asp Arg Asp Lys Gly Ser Asn 55 Ala Val Val His Tyr Ser Ile Met Ser Gly Asn Ala Arg Gly Gln Phe 70 · 75 Tyr Leu Asp Ala Gln Thr Gly Ala Leu Asp Val Val Ser Pro Leu Asp 85 90 Tyr Glu Thr Thr Lys Glu Tyr Thr Leu Arg Val Arg Ala Gln Asp Gly 100 105 Gly Arg Pro Pro Leu Ser Asn Val Ser Gly Leu Val Thr Val Gln Val 115 120 125 Leu Asp Ile Asn Asp Asn Ala Pro Ile Phe Val Ser Thr Pro Phe Gln 135 140 Ala Thr Val Leu Glu Ser Val Pro Leu Gly Tyr Leu Val Leu His Val 150 155 Gln Ala Ile Asp Ala Asp Ala Gly Asp Asn Ala Arg Leu Glu Tyr Arg 165 170 175 Leu Ala Gly Val Gly His Asp Phe Pro Phe Thr Ile Asn Asn Gly Thr 180 185

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Gly Trp Ile Ser Val Ala Ala Glu Leu Asp Arg Glu Glu Val Asp Phe
                         200
      195
Tyr Ser Phe Gly Val Glu Ala Arg Asp His Gly Thr Pro Ala Leu Thr
                   215
                                       220
Ala Ser Ala Ser Val Ser Val Thr Ala Leu Asp Val Asn Asp Asn Asn
                                   235
                 230
Pro Thr Phe Thr Gln Pro Glu Tyr Thr Val Arg Leu Asn Glu Asp Ala
                       250
            245
Ala Val Gly Thr Ser Val Val Thr Val Ser Ala Val Asp Arg Asp Ala
                          265
          260
His Ser Val Ile Thr Tyr Gln Ile Thr Ser Gly Asn Thr Arg Asn Arg
                                          285
                       280
       275
Phe Ser Ile Thr Ser Gln Ser Gly Gly Leu Val Ser Leu Ala Leu
                                       300
                    295
Pro Leu Asp Tyr Lys Leu Glu Arg Gln Tyr Val Leu Ala Val Thr Ala
                                  315
                 310
Ser Asp Gly Thr Arg Gln Asp Thr Ala Gln Ile Val Val Asn Val Thr
            325
                       330
Asp Ala Asn Thr His Arg Pro Val Phe Gln Ser Ser His Tyr Thr Val
                                     350
       340
                            345
Asn Val Asn Glu Asp Arg Pro Ala Gly Thr Thr Val Val Leu Ile Ser
                                           365
                        360
Ala Thr Asp Glu Asp Thr Gly Glu Asn Ala Arg Ile Thr Tyr Phe Met
                                       380
                     375
Glu Asp Ser Ile Pro Gln Phe Arg Ile Asp Ala Asp Thr Gly Ala Val
                                   395
                  390
Thr Thr Gln Ala Glu Leu Asp Tyr Glu Asp Gln Val Ser Tyr Thr Leu
                                410
             405
Ala Ile Thr Ala Arg Asp Asn Gly Ile Pro Gln Lys Ser Asp Thr Thr
                                     430
                             425
          420
Tyr Leu Glu Ile Leu Val Asn Asp Val Asn Asp Asn Ala Pro Gln Phe
                                           445
               . 440
Leu Arg Asp Ser Tyr Gln Gly Ser Val Tyr Glu Asp Val Pro Pro Phe
                                        460
                     455
Thr Ser Val Leu Gln Ile Ser Ala Thr Asp Arg Asp Ser Gly Leu Asn
                                    475
                  470
Gly Arg Val Phe Tyr Thr Phe Gln Gly Gly Asp Asp Gly Asp Gly Asp 485 490 495
 Phe Ile Val Glu Ser Thr Ser Gly Ile Val Arg Thr Leu Arg Arg Leu
                             505
                                             510
          500
 Asp Arg Glu Asn Val Ala Gln Tyr Val Leu Arg Ala Tyr Ala Val Asp
                                           525
       515 520
 Lys Gly Met Pro Pro Ala Arg Thr Pro Met Glu Val Thr Val Thr Val
                                        540
                     535
 Leu Asp Val Asn Asp Asn Pro Pro Val Phe Glu Gln Asp Glu Phe Asp
                            555
                  550
 Val Phe Val Glu Glu Asn Ser Pro Ile Gly Leu Ala Val Ala Arg Val
                         570
              565
 Thr Ala Thr Asp Pro Asp Glu Gly Thr Asn Ala Gln Ile Met Tyr Gln
                                              590
                             585
           580
 Ile Val Glu Gly Asn Ile Pro Glu Val Phe Gln Leu Asp Ile Phe Ser
                                            605
                600
        595
 Gly Glu Leu Thr Ala Leu Val Asp Leu Asp Tyr Glu Asp Arg Pro Glu
                                       620
                      615
 Tyr Val Leu Val Ile Gln Ala Thr Ser Ala Pro Leu Val Ser Arg Ala
                                   635
                  630
 Thr Val His Val Arg Leu Leu Asp Arg Asn Asp Asn Pro Pro Val Leu
                                650
               645
 Gly Asn Phe Glu Ile Leu Phe Asn Asn Tyr Val Thr Asn Arg Ser Ser
                                               670
                     665
           660
 Ser Phe Pro Gly Gly Ala Ile Gly Arg Val Pro Ala His Asp Pro Asp
                                           685
                          680
 Ile Ser Asp Ser Leu Thr Tyr Ser Phe Glu Arg Gly Asn Glu Leu Ser
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Leu Val Leu Leu Asn Ala Ser Thr Gly Glu Leu Lys Leu Ser Arg Ala 710 715 Leu Asp Asn Asn Arg Pro Leu Glu Ala Ile Met Ser Val Leu Val Ser 725 730 Asp Gly Val His Ser Val Thr Ala Gln Cys Ala Leu Arg Val Thr Ile 740 745 Ile Thr Asp Glu Met Leu Thr His Ser Ile Thr Leu Arg Leu Glu Asp 75⁻ 760 Met Ser Pro Glu Arg Phe Leu Ser Pro Leu Leu Gly Leu Phe Ile Gln 775 780 Ala Val Ala Ala Thr Leu Ala Thr Pro Pro Asp His Val Val Phe 785 790 795 Asn Val Gln Arg Asp Thr Asp Ala Pro Gly Gly His Ile Leu Asn Val 805 810 Ser Leu Ser Val Gly Gln Pro Pro Gly Pro Gly Gly Pro Pro Phe 820 825 830 Leu Pro Ser Glu Asp Leu Gln Glu Arg Leu Tyr Leu Asn Arg Ser Leu 840 835 845 Leu Thr Ala Ile Ser Ala Gln Arg Val Leu Pro Phe Asp Asp Asn Ile 855 860 Cys Leu Arg Glu Pro Cys Glu Asn Tyr Met Arg Cys Val Ser Val Leu 865 870 875 885 Arg Phe Asp Ser Ser Ala Pro Phe Ile Ala Ser Ser Ser Val Leu Phe 885 890 Arg Pro Ile His Pro Val Gly Gly Leu Arg Cys Arg Cys Pro Pro Gly 900 905 Phe Thr Gly Asp Tyr Cys Glu Thr Glu Val Asp Leu Cys Tyr Ser Arg 920 925 Pro Cys Gly Pro His Gly Arg Cys Arg Ser Arg Glu Gly Gly Tyr Thr 935 940 Cys Leu Cys Arg Asp Gly Tyr Thr Gly Glu His Cys Glu Val Ser Ala 950 955 Arg Ser Gly Arg Cys Thr Pro Gly Val Cys Lys Asn Gly Gly Thr Cys 965 970 975 Val Asn Leu Leu Val Gly Gly Phe Lys Cys Asp Cys Pro Ser Gly Asp 985 Phe Glu Lys Pro Tyr Cys Gln Val Thr Thr Arg Ser Phe Pro Ala His 995 1000 1005 Ser Phe Ile Thr Phe Arg Gly Leu Arg Gln Arg Phe His Phe Thr Leu 1010 1015 1020 Ala Leu Ser Phe Ala Thr Lys Glu Arg Asp Gly Leu Leu Leu Tyr Asn 1030 1035 Gly Arg Phe Asn Glu Lys His Asp Phe Val Ala Leu Glu Val Ile Gln 1045 1050 1055 Glu Gln Val Gln Leu Thr Phe Ser Ala Gly Glu Ser Thr Thr Thr Val 1060 1065 Ser Pro Phe Val Pro Gly Gly Val Ser Asp Gly Gln Trp His Thr Val 1080 1085 Gln Leu Lys Tyr Tyr Asn Lys Pro Leu Leu Gly Gln Thr Gly Leu Pro 1090 1095 1100 Gln Gly Pro Ser Glu Gln Lys Val Ala Val Val Thr Val Asp Gly Cys 1110 1115 Asp Thr Gly Val Ala Leu Arg Phe Gly Ser Val Leu Gly Asn Tyr Ser 1125 1130 1135 Cys Ala Ala Gln Gly Thr Gln Gly Gly Ser Lys Lys Ser Leu Asp Leu 1140 1145 1150 Thr Gly Pro Leu Leu Gly Gly Val Pro Asp Leu Pro Glu Ser Phe 1155 1160 1165 Pro Val Arg Met Arg Gln Phe Val Gly Cys Met Arg Asn Leu Gln Val 1175 1180 Asp Ser Arg His Ile Asp Met Ala Asp Phe Ile Ala Asn Asn Gly Thr 1185 1190 1195 1200 Val Pro Gly Cys Pro Ala Lys Lys Asn Val Cys Asp Ser Lys Thr Cys 1205 1210

His Asn Gly Gly Thr Cys Val Asn Gln Trp Asp Ala Phe Ser Cys Glu 1220 1225 Cys Pro Leu Gly Phe Gly Gly Lys Ser Cys Ala Gln Glu Met Ala Asn 1240 1245 1235 Pro Gln His Phe Leu Gly Ser Ser Leu Val Ala Trp His Gly Leu Ser 1260 1250 1255 Leu Pro Ile Ser Gln Pro Trp Tyr Leu Ser Leu Met Phe Arg Thr Arg 1275 1270 1265 Gln Ala Asp Gly Val Leu Leu Gln Ala Ile Thr Arg Gly Arg Ser Thr 1285 1290 1295 Ile Thr Leu Gln Leu Arg Glu Gly His Val Met Leu Ser Val Glu Gly 1300 1305 1310 Thr Gly Leu Gln Ala Ser Ser Leu Arg Leu Glu Pro Gly Arg Ala Asn 1315 1320 1325 Asp Gly Asp Trp His His Ala Gln Leu Ala Leu Gly Ala Ile Gly Gly 1340 1330 1335 Pro Gly His Ala Ile Leu Ser Phe Asp Tyr Gly Gln Gln Arg Ala Glu 1355 1360 1350 Gly Asn Leu Gly Pro Arg Leu His Gly Leu His Leu Ser Asn Ile Thr 1365 1370 1375 Val Gly Gly Ile Pro Gly Pro Ala Gly Gly Val Ala Arg Gly Phe Arg 1380 1385 1390 Gly Cys Leu Gln Gly Val Arg Val Ser Asp Thr Pro Glu Gly Val Asn 1395 1400 1405 Ser Leu Asp Pro Ser His Gly Glu Ser Ile Asn Val Glu Gln Gly Cys 1410 1415 1420 Ser Leu Pro Asp Pro Cys Asp Ser Asn Pro Cys Pro Ala Asn Ser Tyr 1430 1435 1440 Cys Ser Asn Asp Trp Asp Ser Tyr Ser Cys Ser Cys Asp Pro Gly Tyr 1445 1450 1455 Tyr Gly Asp Asn Cys Thr Asn Val Cys Asp Leu Asn Pro Cys Glu His 1460 1465 1470 Gln Ser Val Cys Thr Arg Lys Pro Ser Ala Pro His Gly Tyr Thr Cys 1475 1480 1485 Glu Cys Pro Pro Asn Tyr Leu Gly Pro Tyr Cys Glu Thr Arg Ile Asp 1495 1500 Gln Pro Cys Pro Arg Gly Trp Trp Gly His Pro Thr Cys Gly Pro Cys 1510 1515 1520 Asn Cys Asp Val Ser Lys Gly Phe Asp Pro Asp Cys Asn Lys Thr Ser 1525 1530 1535 Gly Glu Cys His Cys Lys Glu Asn His Tyr Arg Pro Pro Gly Ser Pro 1540 1545 1550 Thr Cys Leu Leu Cys Asp Cys Tyr Pro Thr Gly Ser Leu Ser Arg Val 1555 1560 1565 Cys Asp Pro Glu Asp Gly Gln Cys Pro Cys Lys Pro Gly Val Ile Gly 1570 1575 1580 Arg Gln Cys Asp Arg Cys Asp Asn Pro Phe Ala Glu Val Thr Thr Asn 1590 1595 Gly Cys Glu Val Asn Tyr Asp Ser Cys Pro Arg Ala Ile Glu Ala Gly 1605 1610 1615 Ile Trp Trp Pro Arg Thr Arg Phe Gly Leu Pro Ala Ala Pro Cys 1620 1625 1630 Pro Lys Gly Ser Phe Gly Thr Ala Val Arg His Cys Asp Glu His Arg 1635 1640 1645 Gly Trp Leu Pro Pro Asn Leu Phe Asn Cys Thr Ser Ile Thr Phe Ser 1655 1660 Glu Leu Lys Gly Phe Ala Glu Arg Leu Gln Arg Asn Glu Ser Gly Leu 1665 1670 1675 1680 Asp Ser Gly Arg Ser Gln Gln Leu Ala Leu Leu Leu Arg Asn Ala Thr 1685 1690 1695 Gln His Thr Ala Gly Tyr Phe Gly Ser Asp Val Lys Val Ala Tyr Gln 1700 1705 1710 Leu Ala Thr Arg Leu Leu Ala His Glu Ser Thr Gln Arg Gly Phe Gly 1725 1720

Leu Ser Ala Thr Gln Asp Val His Phe Thr Glu Asn Leu Leu Arg Val 1730 1735 1740 Gly Ser Ala Leu Leu Asp Thr Ala Asn Lys Arg His Trp Glu Leu Ile 1750 1755 Gln Gln Thr Glu Gly Gly Thr Ala Trp Leu Leu Gln His Tyr Glu Ala 1765 1770 1775 Tyr Ala Ser Ala Leu Ala Gln Asn Met Arg His Thr Tyr Leu Ser Pro 1780 1785 1790 Phe Thr Ile Val Thr Pro Asn Ile Val Ile Ser Val Val Arg Leu Asp 1795 1800 1805 Lys Gly Asn Phe Ala Gly Ala Lys Leu Pro Arg Tyr Glu Ala Leu Arg 1810 1815 1820 Gly Glu Gln Pro Pro Asp Leu Glu Thr Thr Val Ile Leu Pro Glu Ser 1825 1830 1835 Val Phe Arg Glu Thr Pro Pro Val Val Arg Pro Ala Gly Pro Gly Glu 1855 1845 1850 Ala Gln Glu Pro Glu Glu Leu Ala Arg Arg Gln Arg Arg His Pro Glu 1860 1865 1870 Leu Ser Gln Gly Glu Ala Val Ala Ser Val Ile Ile Tyr Arg Thr Leu 1875 1880 1885 Ala Gly Leu Leu Pro His Asn Tyr Asp Pro Asp Lys Arg Ser Leu Arg 1890 1895 1900 Val Pro Lys Arg Pro Ile Ile Asn Thr Pro Val Val Ser Ile Ser Val 1905 1910 1915 His Asp Asp Glu Glu Leu Leu Pro Arg Ala Leu Asp Lys Pro Val Thr 1925 1930 1935 Val Gln Phe Arg Leu Leu Glu Thr Glu Glu Arg Thr Lys Pro Ile Cys 1945 1940 1950 Val Phe Trp Asn His Ser Ile Leu Val Ser Gly Thr Gly Gly Trp Ser 1955 1960 1965 Ala Arg Gly Cys Glu Val Val Phe Arg Asn Glu Ser His Val Ser Cys 1970 1975 1980 Gln Cys Asn His Met Thr Ser Phe Ala Val Leu Met Asp Val Ser Arg 1990 1995 2000 Arg Glu Asn Gly Glu Ile Leu Pro Leu Lys Thr Leu Thr Tyr Val Ala 2005 2010 Leu Gly Val Thr Leu Ala Ala Leu Leu Leu Thr Phe Phe Leu Thr 2020 2025 2030 Leu Leu Arg Ile Leu Arg Ser Asn Gln His Gly Ile Arg Arg Asn Leu 2035 2040 2045 Thr Ala Ala Leu Gly Leu Ala Gln Leu Val Phe Leu Leu Gly Ile Asn 2055 2060 Gln Ala Asp Leu Pro Phe Ala Cys Thr Val Ile Ala Ile Leu Leu His 2065 2070 2075 2080 Phe Leu Tyr Leu Cys Thr Phe Ser Trp Ala Leu Leu Glu Ala Leu His 2085 2090 Leu Tyr Arg Ala Leu Thr Glu Val Arg Asp Val Asn Thr Gly Pro Met 2100 2105 2110 Arg Phe Tyr Tyr Met Leu Gly Trp Gly Val Pro Ala Phe Ile Thr Gly 2125 2115 . 2120 Leu Ala Val Gly Leu Asp Pro Glu Gly Tyr Gly Asn Pro Asp Phe Cys 2135 2140 Trp Leu Ser Ile Tyr Asp Thr Leu Ile Trp Ser Phe Ala Gly Pro Val 2155 2160 2145 Ala Phe Ala Val Ser Met Ser Val Phe Leu Tyr Ile Leu Ala Ala Arg 2165 2170 Ala Ser Cys Ala Ala Gln Arg Gln Gly Phe Glu Lys Lys Gly Pro Val 2180 2185 2190 Ser Gly Leu Gln Pro Ser Phe Ala Val Leu Leu Leu Ser Ala Thr 2195 2200 2205 Trp Leu Leu Ala Leu Leu Ser Val Asn Ser Asp Thr Leu Leu Phe His 2210 2215 2220 Tyr Leu Phe Ala Thr Cys Asn Cys Ile Gln Gly Pro Phe Ile Phe Leu 2230 2235 2240

Ser Tyr Val Val Leu Ser Lys Glu Val Arg Lys Ala Leu Lys Leu Ala 2245 2250 2255 Cys Ser Arg Lys Pro Ser Pro Asp Pro Ala Leu Thr Thr Lys Ser Thr 2260 2265 2270 Leu Thr Ser Ser Tyr Asn Cys Pro Ser Pro Tyr Ala Asp Gly Arg Leu 2275 2280 2285 Tyr Gln Pro Tyr Gly Asp Ser Ala Gly Ser Leu His Ser Thr Ser Arg 2290 2295 2300 Ser Gly Lys Ser Gln Pro Ser Tyr Ile Pro Phe Leu Leu Arg Glu Glu 2310 2315 2305 Ser Ala Leu Asn Pro Gly Gln Gly Pro Pro Gly Leu Gly Gly Ile Pro 2330 2335 2325 Gly Arg Leu Cys Phe Leu Gly Arg Phe Lys Asp Gln Gln His Asp Ser 2340 2345 2350 Xaa Thr Arg Asp Phe Asp Ser Asp Leu Ser Leu Glu Asp Asp Gln Ser 2355 2360 2365 Gly Ser Tyr Ala Ser Thr His Ser Ser Asp Ser Glu Glu Glu Glu Glu 2370 2375 2380 Glu Glu Glu Glu Ala Ala Phe Pro Gly Glu Gln Gly Trp Asp Ser 2390 2395 2400 2385 Leu Leu Gly Pro Gly Ala Glu Arg Leu Pro Leu His Ser Thr Pro Lys 2405 2410 2415 Asp Gly Gly Pro Gly Pro Gly Lys Ala Pro Trp Pro Gly Asp Phe Gly 2430 2425 2420 Thr Thr Ala Lys Glu Ser Ser Gly Asn Gly Ala Pro Glu Glu Arg Leu 2445 2440 2435 Arg Glu Asn Gly Asp Ala Leu Ser Arg Glu Gly Ser Leu Gly Pro Leu 2450 2455 2460 Pro Gly Ser Ser Ala Gln Pro His Lys Gly Ile Leu Lys Lys Lys Cys 2465 2470 2475 2480 Leu Pro Thr Ile Ser Glu Lys Ser Ser Leu Leu Arg Leu Pro Leu Glu 2485 2490 Gln Cys Thr Gly Ser Ser Arg Gly Ser Ser Ala Ser Glu Gly Ser Arg 2500 2505 2510 Gly Gly Pro Pro Ser Arg Pro Pro Pro Arg Gln Ser Leu Gln Glu Gln 2515 2520 2525 Leu Asn Gly Val Met Pro Ile Ala Met Ser Ile Lys Ala Gly Thr Val 2530 2535 2540 Asp Glu Asp Ser Ser Gly Ser Glu Phe Leu Phe Phe Asn Phe Leu His 2555 2550

<210> 1775
<211> 423
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(420)
<223> Xaa = any amino acid or nothing

 <400> 1775

 Gly Glu Pro Ala Val Gln Ser Cys Asp Cys Gly Cys Thr Gln Arg Ser

 1
 5

 10
 15

 Cys Pro Trp Leu Leu Val Ala Pro Gly Leu Leu Ser Ser Ser Ser Ser
 30

 Arg Ala Ala Ser Val Arg Glu Ala Glu Asp Ala Pro Leu Gln Pro Ala
 35

 Ser Ile His Pro Val Ser Gln Gly Ser Arg Gly Pro Glu Gly Ser Leu
 50

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Gly Ser Ala Glu Cys Leu Pro Gly Asp Pro Leu Gly Ala Arg Arg Ala
                  70
                                    75
Thr Arg Ala His Ser Pro Val Pro Gly Pro Pro Pro Ser Leu Pro Ala
Ala Gly Thr Ala Val Lys Arg Gly Leu Gln Pro Gly Xaa Gly Ala Gly
       100
                           105
Ala Thr Ser Thr Pro Gly Thr Gly Ala Ala Thr Gly Gly Leu Cys Gly
                                  125
                     120
Pro Ala Trp Ala Ala Pro Ser Ala Val Gly Pro Cys Cys Cys Pro
                 135
                                    140
Ser Ile Ser Thr Thr Pro Ser Gln Met Arg Ser Ala Arg Pro Ser Leu
145 150 155
Gly Cys Leu Pro Ser Trp Ala Ser Pro Gly Thr Glu His Pro Pro Gly
             165
                               170
Pro Gln Gly Pro Gly Pro Ser Xaa Asp Leu Cys Ser Val Xaa Lys Arg
                           185
                                             190
          180
Glu Phe Gln Arg Gly Pro Trp Ala Gly Met Val Ile Leu His Arg Ile
     195
                        200
                                       205
Ser Ala Ala Asp Pro Ala Arg Ala Pro Gly Pro Asp Ser Asn Leu Gln
                    215
                                    220
Ser Ala Leu Gln Gln Pro Ala Thr Gly Cys Ser Glu Pro Ala Ala Val
                230
                                  235
                                                     240
Tyr Ser Pro Pro Ile Gly Leu Trp Gly Ala Xaa Xaa Pro Glu Tyr Gly
                                                255
             245
                               250
Kaa Pro Gln His Ser Leu Pro Gly Kaa Thr Ala Pro Ala Asp Arg Kaa
                            265
                                              270
Pro Ala Gly Ile Lys Asp Arg Val Tyr Ser Asn Ser Ile Tyr Glu Leu
                        280
                                          285
Leu Glu Asn Gly Gln Arg Ala Gly Thr Cys Val Leu Glu Tyr Ala Thr
        295
                                    300
Pro Leu Gln Thr Leu Phe Ala Met Ser Gln Tyr Ser Gln Ala Gly Phe 305 310 315 320
Ser Arg Glu Asp Arg Leu Glu Gln Ala Lys Leu Phe Cys Arg Thr Leu
              325
                               330
Glu Asp Ile Leu Ala Asp Ala Pro Glu Ser Gln Asn Asn Cys Arg Leu
         340 345 350
Ile Ala Tyr Gln Glu Pro Ala Asp Asp Ser Ser Phe Ser Leu Ser Gln
                                 365
      355
                       360
Glu Val Leu Arg His Leu Arg Gln Glu Glu Lys Glu Glu Val Thr Val
                    375
                                      380
Gly Ser Leu Lys Thr Ser Ala Val Pro Ser Thr Ser Thr Met Ser Gln
               390
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Glu Pro Glu Leu Leu Ile Ser Gly Met Glu Lys Pro Leu Pro Leu Arg
Thr Asp Phe Ser
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<212> PRT
<213> Homo sapiens
<221> misc_feature
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<222> (1)...(431) <223> Xaa = any amino acid or nothing

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   50
                   55
Gly Glu Ser Gly Ala Gly Gly Asn Arg Gln Gly Gly Leu Ala Gln Arg
                              75
                70
Ile Pro Gln Leu Phe Leu Leu Pro Ser Asp Lys Arg Phe Pro Ala Phe
                           90
            85
Gly Phe Gly Ala Arg Ile Pro Pro Asn Phe Glu Val Gly Xaa Met Arg
                105
         100
Gly Lys Glu Gly Asp Gly Gly Arg Val Ser Gln Ala Glu Lys Ala Gly
             120
                                      125
     115
Pro His Cys Ser Arg Leu Ala Leu Thr Gly Ser His Asp Phe Ala Ile
                                   140
                  135
Asn Phe Asp Pro Glu Asn Pro Glu Cys Glu Gly Lys Arg Gly Asp Phe
        150
                       155
His Leu Pro Arg Leu Pro Ala Asp Thr Leu His Thr Gly Ala Gln Thr
                 170
                                          175
            165
Pro Leu Pro Arg Ala Gln Leu Pro Val Pro Ser Thr His Pro Arg Pro
                              190
   180 185
Val Phe Ile Glu Ile Ser Gly Val Ile Ala Ser Tyr Arg Arg Cys Leu
             200 205
Pro Gln Ile Gln Leu Tyr Gly Pro Thr Asn Val Ala Pro Ile Ile Asn
                          220
                  215
Arg Val Ala Glu Pro Ala Gln Arg Glu Gln Ser Thr Gly Gln Ala Thr
                              235
              230
Lys Tyr Ser Val Leu Leu Val Leu Thr Asp Gly Val Val Ser Asp Met
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                                    255
          245
Ala Glu Thr Arg Thr Ala Ile Val Arg Ala Ser Arg Leu Pro Met Ser
                265
                                       270
       260
Ile Ile Ile Val Gly Val Gly Asn Ala Asp Phe Ser Asp Met Arg Leu
                      280 285
      275
Leu Asp Gly Asp Asp Gly Pro Leu Arg Cys Pro Arg Gly Val Pro Ala
                               300
                   295
Ala Arg Asp Ile Val Gln Phe Val Pro Phe Arg Asp Phe Lys Asp Val
               310
                       315
Ser Pro Pro Gly Pro Phe Arg Leu Lys Asp Ser Ser Ala Ser His Pro
       325 330 335
Pro'Lys Ser Asp Leu Arg Leu Pro Pro Phe Asp Val Leu Leu Arg Thr 340 345 350
Arg Glu Pro Ser Trp Pro Pro Kaa Ser Pro Thr Ser Pro Ser Asp Asp
      355 360
Pro Ala Ser Pro Thr Leu Pro Leu Thr Pro Asn His Ile Thr Val Pro
                   375 380
Thr Leu Ala Ala Pro Ser Ala Leu Ala Lys Cys Val Leu Ala Glu Val
                390
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Pro Arg Gln Val Val Glu Tyr Tyr Ala Ser Gln Gly Ile Ser Pro Gly
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                           410
Ala Pro Arg Pro Cys Thr Leu Ala Thr Thr Pro Ser Pro Ser Pro
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<210> 1777 <211> 3223 <212> PRT <213> Homo sapiens

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## . . . / uu ua/useuu

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Ser Ala Leu Thr Ala Ser Val Lys Asp Glu Ile Ser Gly Glu Leu Ala
                 550
                                   555
Ala Ser Ser Gly Val Ser Thr Pro Gly Ser Ala Gly His Asp Ile Ile
              565
                              570
Thr Glu Gln Pro Arg Ser Gln His Thr Leu Gln Ala Asp Ser Val Asp
                           585
          580
Leu Ala Ser Cys Asp Leu Thr Ser Ser Ala Thr Asp Gly Asp Glu Glu
                                         605
                        600
Asp Ile Leu Ser His Ser Ser Ser Gln Val Ser Ala Val Pro Ser Asp
                                      620
                   615
Pro Ala Met Asp Leu Asn Asp Gly Thr Gln Ala Ser Ser Pro Ile Ser
                                  635
               630
Asp Ser Ser Gln Thr Thr Thr Glu Gly Pro Asp Ser Ala Val Thr Pro
                               650
            645
Ser Asp Ser Ser Glu Ile Val Leu Asp Gly Thr Asp Asn Gln Tyr Leu
                           665
                                             670
Gly Leu Gln Ile Gly Gln Pro Gln Asp Glu Asp Glu Glu Ala Thr Gly
                                          685
                        680
      675
Ile Leu Pro Asp Glu Ala Ser Glu Ala Phe Arg Asn Ser Ser Met Ala
                   695
Leu Gln Gln Ala His Leu Leu Lys Asn Met Ser His Cys Arg Gln Pro
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          710
Ser Asp Ser Ser Val Asp Lys Phe Val Leu Arg Asp Glu Ala Thr Glu
              725
                       730
Pro Gly Asp Gln Glu Asn Lys Pro Cys Arg Ile Lys Gly Asp Ile Gly
                                              750
                            745
Gln Ser Thr Asp Asp Asp Ser Ala Pro Leu Val His Cys Val Arg Leu
       755
                        760
                                           765
Leu Ser Ala Ser Phe Leu Leu Thr Gly Gly Lys Asn Val Leu Val Pro
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                                  780
Asp Arg Asp Val Arg Val Ser Val Lys Ala Leu Ala Leu Ser Cys Val
                 790
                                795
Gly Ala Ala Val Ala Leu His Pro Glu Ser Phe Phe Ser Lys Leu Tyr
             805
                              810
Lys Val Pro Leu Asp Thr Thr Glu Tyr Pro Glu Glu Gln Tyr Val Ser
          820
                            825
                                              830
Asp Ile Leu Asn Tyr Ile Asp His Gly Asp Pro Gln Val Arg Gly Ala
                         840
                                          845
Thr Ala Ile Leu Cys Gly Thr Leu Ile Cys Ser Ile Leu Ser Arg Ser
             855
                                      860
Arg Phe His Val Gly Asp Trp Met Gly Thr Ile Arg Thr Leu Thr Gly
         870
                                  875
Asn Thr Phe Ser Leu Ala Asp Cys Ile Pro Leu Leu Arg Lys Thr Leu
                               890
              885
Lys Asp Glu Ser Ser Val Thr Cys Lys Leu Ala Cys Thr Ala Val Arg
                                             910
          900
                            905
Asn Cys Val Met Ser Leu Cys Ser Ser Ser Tyr Ser Glu Leu Gly Leu
                        920
                                          925
       915
Gln Leu Ile Ile Asp Val Leu Thr Leu Arg Asn Ser Ser Tyr Trp Leu
                                      940
                   935
Val Arg Thr Glu Leu Leu Glu Thr Leu Ala Glu Ile Asp Phe Arg Leu
         950
                                  955
Val Ser Phe Leu Glu Ala Lys Ala Glu Asn Leu His Arg Gly Ala His
             965
                               970
His Tyr Thr Gly Leu Leu Lys Leu Gln Glu Arg Val Leu Asn Asn Val
                            985
                                              990
Val Ile His Leu Leu Gly Asp Glu Asp Pro Arg Val Arg His Val Ala
      995 1000
                                         1005
Ala Ala Ser Leu Ile Arg Leu Val Pro Lys Leu Phe Tyr Lys Cys Asp
                                     1020
 1010 1015
Gln Gly Gln Ala Asp Pro Val Val Ala Val Ala Arg Asp Gln Ser Ser
                1030 1035
Val Tyr Leu Lys Leu Leu Met His Glu Thr Gln Pro Pro Ser His Phe
             1045
                               1050
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والمالية والمناسب والمساسب

Ser Val Ser Thr Ile Thr Arg Ile Tyr Arg Gly Tyr Asn Leu Leu Pro 1060 1065 Ser Ile Thr Asp Val Thr Met Glu Asn Asn Leu Ser Arg Val Ile Ala 1075 1080 1085 Ala Val Ser His Glu Leu Ile Thr Ser Thr Thr Arg Ala Leu Thr Phe 1090 1095 1100 Gly Cys Cys Glu Ala Leu Cys Leu Leu Ser Thr Ala Phe Pro Val Cys 1110 1115 1120 1105 Ile Trp Ser Leu Gly Trp His Cys Gly Val Pro Pro Leu Ser Ala Ser 1125 1130 1135 Asp Glu Ser Arg Lys Ser Cys Thr Val Gly Met Ala Thr Met Ile Leu 1140 1145 1150 Thr Leu Leu Ser Ser Ala Trp Phe Pro Leu Asp Leu Ser Ala His Gln 1155 1160 1165 Asp Ala Leu Ile Leu Ala Gly Asn Leu Leu Ala Ala Ser Ala Pro Lys 1170 1175 1180 Ser Leu Arg Ser Ser Trp Ala Ser Glu Glu Glu Ala Asn Pro Ala Ala 1185 1190 1195 1200 Thr Lys Gln Glu Glu Val Trp Pro Ala Leu Gly Asp Arg Ala Leu Val 1205 1210 Pro Met Val Glu Gln Leu Phe Ser His Leu Leu Lys Val Ile Asn Ile 1220 1225 1230 Cys Ala His Val Leu Asp Asp Val Ala Pro Gly Pro Ala Ile Lys Ala 1235 1240 1245 Ala Leu Pro Ser Leu Thr Asn Pro Pro Ser Leu Ser Pro Ile Arg Arg 1250 1255 1260 Lys Gly Lys Glu Lys Glu Pro Gly Glu Gln Ala Ser Val Pro Leu Ser 1270 1275 Pro Lys Lys Gly Ser Glu Ala Ser Ala Ala Ser Arg Gln Ser Asp Thr 1285 1290 1295 Ser Gly Pro Val Thr Thr Ser Lys Ser Ser Ser Leu Gly Ser Phe Tyr 1300 1305 1310 His Leu Pro Ser Tyr Leu Lys Leu His Asp Val Leu Lys Ala Thr His 1315 1320 1325 Ala Asn Tyr Lys Val Thr Leu Asp Leu Gln Asn Ser Thr Glu Lys Phe 1335 1340 Gly Gly Phe Leu Arg Ser Ala Leu Asp Val Leu Ser Gln Ile Leu Glu 1350 1355 Leu Ala Thr Leu Gln Asp Ile Gly Lys Cys Val Glu Glu Ile Leu Gly 1365 1370 1375 Tyr Leu Lys Ser Cys Phe Ser Arg Glu Pro Met Met Ala Thr Val Cys 1380 1385 1390 Val Gln Gln Leu Leu Lys Thr Leu Phe Gly Thr Asn Leu Ala Ser Gln 1395 1400 1405 Phe Asp Gly Leu Ser Ser Asn Pro Ser Lys Ser Gln Gly Arg Ala Gln 1410 1415 1420 Arg Leu Gly Ser Ser Ser Val Arg Pro Gly Leu Tyr His Tyr Cys Phe 1430 1435 Met Ala Pro Tyr Thr His Phe Thr Gln Ala Leu Ala Asp Ala Ser Leu 1445 1450 1455 Arg Asn Met Val Gln Ala Glu Gln Glu Asn Asp Thr Ser Gly Trp Phe 1460 1465 1470 Asp Val Leu Gln Lys Val Ser Thr Gln Leu Lys Thr Asn Leu Thr Ser 1475 1480 1485 Val Thr Lys Asn Arg Ala Asp Lys Asn Ala Ile His Asn His Ile Arg 1495 1500 Leu Phe Glu Pro Leu Val Ile Lys Ala Leu Lys Gln Tyr Thr Thr 1505 1510 1515 1520 Thr Cys Val Gln Leu Gln Lys Gln Val Leu Asp Leu Leu Ala Gln Leu 1525 1530 1535 Val Gln Leu Arg Val Asn Tyr Cys Leu Leu Asp Ser Asp Gln Val Phe 1540 1545 1550 Ile Gly Phe Val Leu Lys Gln Phe Glu Tyr Ile Glu Val Gly Gln Phe 1560 1555 1565

WO 01/57188

Arg Glu Ser Glu Ala Ile Ile Pro Asn Ile Phe Phe Leu Val Leu 1570 1575 1580 Leu Ser Tyr Glu Arg Tyr His Ser Lys Gln Ile Ile Gly Ile Pro Lys 1590 1595 Ile Ile Gln Leu Cys Asp Gly Ile Met Ala Ser Gly Arg Lys Ala Val 1610 1615 1605 Thr His Ala Ile Pro Ala Leu Gln Pro Ile Val His Asp Leu Phe Val 1625 1630 1620 Leu Arg Gly Thr Asn Lys Ala Asp Ala Gly Lys Glu Leu Glu Thr Gln 1640 1645 1635 Lys Glu Val Val Val Ser Met Leu Leu Arg Leu Ile Gln Tyr His Gln 1650 1655 1660 Val Leu Glu Met Phe Ile Leu Val Leu Gln Gln Cys His Lys Glu Asn 1670 1675 Glu Asp Lys Trp Lys Arg Leu Ser Arg Gln Ile Ala Asp Ile Ile Leu 1690 1685 Pro Met Leu Ala Lys Gln Gln Met His Ile Asp Ser His Glu Ala Leu 1705 1710 1700 Gly Val Leu Asn Thr Leu Phe Glu Ile Leu Ala Pro Ser Ser Leu Arg 1715 1720 1725 Pro Val Asp Met Leu Leu Arg Ser Met Phe Val Thr Pro Asn Thr Met 1730 1735 1740 Ala Ser Val Ser Thr Val Gln Leu Trp Ile Ser Gly Ile Leu Ala Ile 1750 1755 Leu Arg Val Leu Ile Ser Gln Ser Thr Glu Asp Ile Val Leu Ser Arg 1770 1775 1765 Ile Gln Glu Leu Ser Phe Ser Pro Tyr Leu Ile Ser Cys Thr Val Ile 1785 1790 1780 Asn Arg Leu Arg Asp Gly Asp Ser Thr Ser Thr Leu Glu Glu His Ser 1800 1805 1795 Glu Gly Lys Gln Ile Lys Asn Leu Pro Glu Glu Thr Phe Ser Arg Phe. 1820 1815 1810 Leu Leu Gln Leu Val Gly Ile Leu Leu Glu Asp Ile Val Thr Lys Gln 1830 1835 Leu Lys Val Glu Met Ser Glu Gln Gln His Thr Phe Tyr Cys Gln Glu 1845 1850 1855 Leu Gly Thr Leu Leu Met Cys Leu Ile His Ile Phe Lys Ser Gly Met 1860 1865 1870 Phe Arg Arg Ile Thr Ala Ala Ala Thr Arg Leu Phe Arg Ser Asp Gly 1875 1880 1885 Cys Gly Gly Ser Phe Tyr Thr Leu Asp Ser Leu Asn Leu Arg Ala Arg 1890 1895 1900 Ser Met Ile Thr Thr His Pro Ala Leu Val Leu Leu Trp Cys Gln Ile 1910 1915 Leu Leu Leu Val Asn His Thr Asp Tyr Arg Trp Trp Ala Glu Val Gln 1930 1925 1935 Gln Thr Pro Lys Arg His Ser Leu Ser Ser Thr Lys Leu Leu Ser Pro 1945 1950 1940 Gln Met Ser Gly Glu Glu Asp Ser Asp Leu Ala Ala Lys Leu Gly 1960 1955 1965 Met Cys Asn Arg Glu Ile Val Arg Arg Gly Ala Leu Ile Leu Phe Cys 1980 1970 1975 Asp Tyr Val Cys Gln Asn Leu His Asp Ser Glu His Leu Thr Trp Leu 1990 1995 Ile Val Asn His Ile Gln Asp Leu Ile Ser Leu Ser His Glu Pro Pro 2015 2010 2005 Val Gln Asp Phe Ile Ser Ala Val His Arg Asn Ser Ala Ala Ser Gly 2025 2030 2020 Leu Phe Ile Gln Ala Ile Gln Ser Arg Cys Glu Asn Leu Ser Thr Pro 2035 2040 2045 Thr Met Leu Lys Lys Thr Leu Gln Cys Leu Glu Gly Ile His Leu Ser 2050 2055 2060 Gln Ser Gly Ala Val Leu Thr Leu Tyr Val Asp Arg Leu Leu Cys Thr 2075 2070

Pro Phe Arg Val Leu Ala Arg Met Val Asp Ile Leu Ala Cys Arg Arg 2085 2090 Val Glu Met Leu Leu Ala Ala Asn Leu Gln Ser Ser Met Ala Gln Leu 2100 2105 2110 Pro Met Glu Glu Leu Asn Arg Ile Gln Glu Tyr Leu Gln Ser Ser Gly 2115 2120 2125 Leu Ala Gln Arg His Gln Arg Leu Tyr Ser Leu Leu Asp Arg Phe Arg 2135 2140 Leu Ser Thr Met Gln Asp Ser Leu Ser Pro Ser Pro Pro Val Ser Ser 2150 2155 2160 2145 His Pro Leu Asp Gly Asp Gly His Val Ser Leu Glu Thr Val Ser Pro 2165 2170 2175 Asp Lys Asp Trp Tyr Val His Leu Val Lys Ser Gln Cys Trp Thr Arg 2180 2185 2190 Ser Asp Ser Ala Leu Leu Glu Gly Ala Glu Leu Val Asn Arg Ile Pro 2195 2200 2205 Ala Glu Asp Met Asn Ala Phe Met Met Asn Ser Glu Phe Asn Leu Ser 2210 2215 2220 Leu Leu Ala Pro Cys Leu Ser Leu Gly Met Ser Glu Ile Ser Gly Gly 2230 2235 Gln Lys Ser Ala Leu Phe Glu Ala Ala Arg Glu Val Thr Leu Ala Arg 2245 2250 2255 Val Ser Gly Thr Val Gln Gln Leu Pro Ala Val His His Val Phe Gln 2260 2265 2270 Pro Glu Leu Pro Ala Glu Pro Ala Ala Tyr Trp Ser Lys Leu Asn Asp 2280 2285 2275 Leu Phe Gly Asp Ala Ala Leu Tyr Gln Ser Leu Pro Thr Leu Ala Arg 2290 2295 2300 Ala Leu Ala Gln Tyr Leu Val Val Val Ser Lys Leu Pro Ser His Leu 2305 2310 2315 2320 His Leu Pro Pro Glu Lys Glu Lys Asp Ile Val Lys Phe Val Val Ala 2325 2330 2335 Thr Leu Glu Ala Leu Ser Trp His Leu Ile His Glu Gln Ile Pro Leu 2345 2350 2340 Ser Leu Asp Leu Gln Ala Gly Leu Asp Cys Cys Cys Leu Ala Leu Gln 2355 2360 2365 Leu Pro Gly Leu Trp Ser Val Val Ser Ser Thr Glu Phe Val Thr His 2370 2375 2380 Ala Cys Ser Leu Ile Tyr Cys Val His Phe Ile Leu Glu Ala Val Ala 2390 2395 2400 Val Gln Pro Gly Glu Gln Leu Leu Ser Pro Glu Arg Arg Thr Asn Thr 2405 2410 2415 Pro Lys Ala Ile Ser Glu Glu Glu Glu Val Asp Pro Asn Thr Gln 2420 2425 2430 Asn Pro Lys Tyr Ile Thr Ala Ala Cys Glu Met Val Ala Glu Met Val 2435 2440 Glu Ser Leu Gln Ser Val Leu Ala Leu Gly His Lys Arg Asn Ser Gly 2455 2460 Val Pro Ala Phe Leu Thr Pro Leu Leu Arg Asn Ile Ile Ile Ser Leu 2465 2470 2475 2480 Ala Arg Leu Pro Leu Val Asn Ser Tyr Thr Arg Val Pro Pro Leu Val 2485 2490 2495 Trp Lys Leu Gly Trp Ser Pro Lys Pro Gly Gly Asp Phe Gly Thr Ala 2500 2505 2510 Phe Pro Glu Ile Pro Val Glu Phe Leu Gln Glu Lys Glu Val Phe Lys 2515 2520 2525 Glu Phe Ile Tyr Arg Ile Asn Thr Leu Gly Trp Thr Ser Arg Thr Gln 2530 2535 2540 Phe Glu Glu Thr Trp Ala Thr Leu Leu Gly Val Leu Val Thr Gln Pro 2550 2555 Leu Val Met Glu Glu Glu Glu Ser Pro Pro Glu Glu Asp Thr Glu Arg 2565 2570 2575 Thr Gln Ile Asn Val Leu Ala Val Gln Ala Ile Thr Ser Leu Val Leu 2580 2585 2590

Ser Ala Met Thr Val Pro Val Ala Gly Asn Pro Ala Val Ser Cys Leu 2595 2600 2605 Glu Gln Gln Pro Arg Asn Lys Pro Leu Lys Ala Leu Asp Thr Arg Phe 2610 2615 2620 Gly Arg Lys Leu Ser Ile Ile Arg Gly Ile Val Glu Gln Glu Ile Gln 2630 2635 2625 Ala Met Val Ser Lys Arg Glu Asn Ile Ala Thr His His Leu Tyr Gln 2645 2650 2655 Ala Trp Asp Pro Val Pro Ser Leu Ser Pro Ala Thr Thr Gly Ala Leu 2660 2665 2670 Ile Ser His Glu Lys Leu Leu Leu Gln Ile Asn Pro Glu Arg Glu Leu 2675 2680 2685 Gly Ser Met Ser Tyr Lys Leu Gly Gln Val Ser Ile His Ser Val Trp 2690 2695 2700 Leu Gly Asn Ser Ile Thr Pro Leu Arg Glu Glu Glu Trp Asp Glu Glu 2710 2715 2720 Glu Glu Glu Ala Asp Ala Pro Ala Pro Ser Ser Pro Pro Thr Ser 2725 2730 2735 Pro Val Asn Ser Arg Lys His Arg Ala Gly Val Asp Ile His Ser Cys 2740 2745 2750 Ser Gln Phe Leu Leu Glu Leu Tyr Ser Arg Trp Ile Leu Pro Ser Ser 2755 2760 2765 Ser Ala Arg Arg Thr Pro Ala Ile Leu Ile Ser Glu Val Val Arg Ser 2770 2775 2780 Leu Leu Val Val Ser Asp Leu Phe Thr Glu Arg Asn Gln Phe Glu Leu 2790 2795 2800 Met Tyr Val Thr Leu Thr Glu Leu Arg Arg Val His Pro Ser Glu Asp 2805 2810 2815 Glu Ile Leu Ala Gln Tyr Leu Val Pro Ala Thr Cys Lys Ala Ala Ala 2820 2825 2830 Val Leu Gly Met Asp Lys Ala Val Ala Glu Pro Val Ser Arg Leu Leu 2835 2840 2845 Glu Ser Thr Leu Arg Ser Ser His Leu Pro Ser Arg Val Gly Ala Leu 2855 2860 His Gly Ile Leu Tyr Val Leu Glu Cys Asp Leu Leu Asp Asp Thr Ala 2875 2880 2870 Lys Gln Leu Ile Pro Val Ile Ser Asp Tyr Leu Leu Ser Asn Leu Lys 2885 2890 2895 Gly Ile Ala His Cys Val Asn Ile His Ser Gln Gln His Val Leu Val 2900 2905 Met Cys Ala Thr Ala Phe Tyr Leu Ile Glu Asn Tyr Pro Leu Asp Val 2915 2920 2925 Gly Pro Glu Phe Ser Ala Ser Ile Ile Gln Met Cys Gly Val Met Leu 2935 2940 Ser Gly Ser Glu Glu Ser Thr Pro Ser Ile Ile Tyr His Cys Ala Leu 2950 2955 Arg Gly Leu Glu Arg Leu Leu Ser Glu Gln Leu Ser Arg Leu Asp 2975 2965 2970 Ala Glu Ser Leu Val Lys Leu Ser Val Asp Arg Val Asn Val His Ser 2980 2985 2990 Pro His Arg Ala Met Ala Ala Leu Gly Leu Met Leu Thr Cys Met Tyr 3000 3005 2995 Thr Gly Lys Glu Lys Val Ser Pro Gly Arg Thr Ser Asp Pro Asn Pro 3015 3020 Ala Ala Pro Asp Ser Glu Ser Val Ile Val Ala Met Glu Arg Val Ser 3035 3030 Val Leu Phe Asp Arg Ile Arg Lys Gly Phe Pro Cys Glu Ala Arg Val 3045 3050 3055 Val Ala Arg Ile Leu Pro Gln Phe Leu Asp Asp Phe Phe Pro Pro Gln 3065 3070 3060 Asp Ile Met Asn Lys Val Ile Gly Glu Phe Leu Ser Asn Gln Gln Pro 3075 3080 3085 Tyr Pro Gln Phe Met Ala Thr Val Val Tyr Lys Val Phe Gln Thr Leu 3095 3090

His Ser Thr Gly Gln Ser Ser Met Val Arg Asp Trp Val Met Leu Ser 3110 3115 3120 Leu Ser Asn Phe Thr Gln Arg Ala Pro Val Ala Met Ala Thr Trp Ser 3125 3130 3135 Leu Ser Cys Phe Phe Val Ser Ala Ser Thr Ser Pro Trp Val Ala Ala 3140 3145 3150 Ile Leu Pro His Val Ile Ser Arg Met Gly Lys Leu Glu Gln Val Asp 3155 3160 3165 Val Asn Leu Phe Cys Leu Val Ala Thr Asp Phe Tyr Arg His Gln Ile 3170 3175 3180 Glu Glu Leu Asp Arg Ala Phe Gln Ser Val Leu Glu Val Val 3185 3190 3195 Ala Ala Pro Gly Ser Pro Tyr His Arg Leu Leu Thr Cys Leu Arg Asn 3205 3210 Val His Lys Val Thr Thr Cys 3220 3223

<210> 1778 <211> 142 <212> PRT <213> Homo sapiens

<400> 1778

Asn Ser Arg Pro Ser Pro Ser Ala Ala Leu Val Glu Val Leu Leu Arg 1 10 Ser Gly Ser Thr Phe Pro His Thr Val Ser Gly Gly Trp Ala Ala Trp 20 25 Gly Pro Trp Ser Ser Cys Ser Arg Asp Cys Glu Leu Gly Phe Arg Val 35 40 Arg Lys Arg Thr Cys Thr Asn Pro Glu Pro Arg Asn Gly Gly Leu Pro 55 Cys Val Gly Asp Ala Ala Glu Tyr Gln Asp Cys Asn Pro Gln Ala Cys 70 75 80 Pro Val Arg Gly Ala Trp Ser Cys Trp Thr Ser Trp Ser Pro Cys Ser 85 90 Ala Ser Cys Gly Gly His Tyr Gln Arg Thr Arg Ser Cys Thr Ser 100 105 110 Pro Ala Pro Ser Pro Gly Glu Asp Ile Cys Leu Gly Leu His Thr Glu 120 . 125 Glu Ala Leu Cys Ala Thr Gln Ala Cys Pro Glu Gly Trp Ser 135 140

<211> 197
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (194)
<223> Xaa = any amino acid or nothing

<400> 1779

<210> 1779

Phe Pro Ala Trp Thr Xaa Arg Ser Cys Ser Lys Ser Leu Arg Ala Ala 55 60 Phe Thr Ser Gln Phe Phe Pro Ser Arg Arg Ser Arg Ala Ser Pro Gly 70 Ser Ala Pro Gly Asn Gly Gln Asn Leu Thr Glu Gln His Pro Cys Pro 90 85 Gly Ser Cys Asp Pro Gln Val Leu Ser Ala Ser Trp Met Xaa Val Glu 105 110 100 His Arg Ser Lys Phe Arg Pro Pro Pro Kaa Asn Ser Thr Ile Pro Pro 125 115 120 Glu Ser Arg Ser Xaa Gln Gly Gly Thr Val Gln Thr Gly Gln His Ser 140 135 Ser Gly Arg Glu Ala Gly Ser Trp Arg Ala Arg Gly Arg Asn Ala Gly 155 150 Arg Arg Xaa Lys Gly Gly Lys Ile Gly Thr Lys Gln Gly Ala Val 170 165 Arg Ala Arg Lys Glu Cys Arg Gly Glu Met Ala Ser Gly Glu Thr Asp 180 Ser Glu 194

<210> 1780 <211> 849 <212> PRT <213> Homo sapiens

<400> 1780

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Ile Leu Arg Ile Ser Gly Arg Ser Tyr Pro Val Glu Val Phe His Leu

Glu Asp Ile Ile Glu Glu Thr Gly Phe Val Leu Glu Lys Asp Ser Glu

Tyr Cys Gln Lys Phe Leu Glu Glu Glu Glu Glu Val Thr Ile Asn Val 265

230

245

260

235

Thr Ser Lys Ala Gly Gly Ile Lys Lys Tyr Gln Glu Tyr Ile Pro Val Gln Thr Gly Ala His Ala Asp Leu Asn Pro Phe Tyr Gln Lys Tyr Ser Ser Arg Thr Gln His Ala Ile Leu Tyr Met Asn Pro His Lys Ile Asn Leu Asp Leu Ile Leu Glu Leu Leu Ala Tyr Leu Asp Lys Ser Pro Gln Phe Arg Asn Ile Glu Gly Ala Val Leu Ile Phe Leu Pro Gly Leu Ala His Ile Gln Gln Leu Tyr Asp Leu Leu Ser Asn Asp Arg Arg Phe Tyr Ser Glu Arg Tyr Lys Val Ile Ala Leu His Ser Ile Leu Ser Thr Gln Asp Gln Ala Ala Ala Phe Thr Leu Pro Pro Pro Gly Val Arg Lys Ile Val Leu Ala Thr Asn Ile Ala Glu Thr Gly Ile Thr Ile Pro Asp Val Val Phe Val Ile Asp Thr Gly Arg Thr Lys Glu Asn Lys Tyr His Glu Ser Ser Gln Met Ser Ser Leu Val Glu Thr Phe Val Ser Lys Ala Ser Ala Leu Gln Arg Gln Gly Arg Ala Gly Arg Val Arg Asp Gly Phe Cys Phe Arg Met Tyr Thr Arg Glu Arg Phe Glu Gly Phe Met Asp Tyr Ser Val Pro Glu Ile Leu Arg Val Pro Leu Glu Glu Leu Cys Leu His Ile Met Lys Cys Asn Leu Gly Ser Pro Glu Asp Phe Leu Ser Lys Ala Leu . 505 Asp Pro Pro Gln Leu Gln Val Ile Ser Asn Ala Met Asn Leu Leu Arg Lys Ile Gly Ala Cys Glu Leu Asn Glu Pro Lys Leu Thr Pro Leu Gly Gln His Leu Ala Ala Leu Pro Val Asn Val Lys Ile Gly Lys Met Leu Ile Phe Gly Ala Ile Phe Gly Cys Leu Asp Pro Val Ala Thr Leu Ala Ala Val Met Thr Glu Lys Ser Pro Phe Thr Thr Pro Ile Gly Arg Lys Asp Glu Ala Asp Leu Ala Lys Ser Ala Leu Ala Met Ala Asp Ser Asp His Leu Thr Ile Tyr Asn Ala Tyr Leu Gly Trp Lys Lys Ala Arg Gln Glu Gly Gly Tyr Arg Ser Glu Ile Thr Tyr Cys Arg Arg Asn Phe Leu Asn Arg Thr Ser Leu Leu Thr Leu Glu Asp Val Lys Gln Glu Leu Ile Lys Leu Val Lys Ala Ala Gly Phe Ser Ser Ser Thr Thr Ser Thr Ser Trp Glu Gly Asn Arg Ala Ser Gln Thr Leu Ser Phe Gln Glu Ile Ala . 685 Leu Leu Lys Ala Val Leu Val Ala Gly Leu Tyr Asp Asn Val Gly Lys Ile Ile Tyr Thr Lys Ser Val Asp Val Thr Glu Lys Leu Ala Cys Ile Val Glu Thr Ala Gln Gly Lys Ala Gln Val His Pro Ser Ser Val Asn Arg Asp Leu Gln Thr His Gly Trp Leu Leu Tyr Gln Glu Lys Ile Arg Tyr Ala Arg Val Tyr Leu Arg Glu Thr Thr Leu Ile Thr Pro Phe Pro Val Leu Leu Phe Gly Gly Asp Ile Glu Val Gln His Arg Glu Arg Leu 

<210> 1781 <211> 147 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(146) <223> Xaa = any amino acid or nothing

<400> 1781 Phe Arg Pro Ala Pro Gly His Val Gln Pro Xaa Gly Gly Ser Ser Ala 10 Ala Ala Gly Gly Gly Leu Leu Ser His Pro Arg Pro Cys Gln Gln Pro 25 30 20 Cys Pro Pro Ala Pro Ala Pro Ser Arg Pro Arg Ser Leu Gly Ser Leu 40 35 Gly Gln Arg Val Pro Ala Ala Leu Ala Thr Ala Ala Gln Glu Leu Pro 60 55 50 Ala Thr Leu Gly Gly Asp Gly Gly Lys Pro Ala Leu Thr Ala Gly Glu 75 70 Ala Ala Leu Pro Gly Leu His Arg Ser Gly Val Pro Ala Ala Ala Ala 90 85 Arg Cys Xaa Pro Cys Thr Ser Arg Pro Thr Xaa Ser Thr Leu Ser Pro 110 100 105 Thr Gln Ala Ala Trp Trp Cys Arg Pro Ser Arg Arg Gln Gln Arg Gly 125 120 Glu Ala Ser Thr Gly Gly Ala Ser Gly Arg Arg Cys Gly Ser Cys Phe 140 130 135 Gln Val 145 146

<211> 137
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(132)
<223> Xaa = any amino acid or nothing

<210> 1782

<210> 1783 <211> 443 <212> PRT <213> Homo sapiens

<400> 1783

Cys Leu Ala Pro Cys Ser Pro Gln Pro Glu Lys Asn Gly Met Gln Pro 10 Leu Leu Leu Leu Pro Pro Leu Leu Tyr Gln Gln Leu Leu His Ser 25 20 Ser Leu Gly Ala Pro Gly Glu Ser Thr Leu Leu Val Arg Thr Ser Lys 40 Leu Leu Val Gly Leu Gly Leu Gln Leu Leu Val Trp Leu Leu Gln 55 Thr Arg Ser Leu Leu Ala Leu Gln Leu His Leu Thr Ser Ser Ala Pro 70 75 Leu Leu Ala Ala Pro Thr Ala Val Cys Ser Cys Ser Arg Cys Ser Ala 85 90 95 Pro Arg Ser Arg Cys Val Ala Arg Pro Ala Ala Arg Thr Gly Leu Pro 100 105 110 Thr Pro Ala Pro Ala Ser Ser Pro Ala Pro Ala Ala Ser Pro Ala Pro 120 125 Ala Ala Ser Pro Ala Pro Ala Glu Ser Thr Ala Pro Gln Pro Leu Ile 135 140 Leu Leu Pro Lys Pro Pro Pro Ala Pro Gly Ala Pro Pro Pro Arg Pro 150 . 155 Gly Ala Pro Pro Pro Arg Pro Ala Ala Ser Pro Ser Pro Ala Ala Ser 165 170 175 Pro Ala Pro Pro Ala Ala Ser Pro Val Leu Thr Ala Ser Pro Pro Leu 180 185 190 Pro Ala Ala Ser Pro Ser Pro Ala Ala Ser Pro Ala Pro Pro Ala Ala 195 200 205 Ser Pro Val Leu Thr Ala Ser Pro Pro Leu Pro Ala Ala Ser Pro Ser 215 220 Pro Ala Ala Ser Pro Ala Pro Pro Ala Ala Ser Pro Val Leu Thr Ala 230 235 Ser Pro Pro Leu Pro Ala Ala Ser Pro Ala Leu Ala Ala Ser Pro Val 245 250 255 His Thr Ala Ser Pro Pro Val His Val Ala Ser Pro Pro Val His Thr 260 265 270 Ala Ser Pro Pro Val His Val Ala Ser Pro Pro Val His Thr Ala Ser 280 Pro Pro Val His Val Ala Ser Pro Pro Val His Thr Ala Ser Pro His 290 295 · 300 Val His Val Ala Ser Pro Pro Val His Val Ala Ser Pro Pro Val His 305 310 315 Val Ala Ser Pro Pro Val His Thr Ala Ser Pro Pro Val His Val Ala 325 330 Ser Pro Pro Val His Thr Ala Ser Pro His Val His Val Ala Ser Pro 340 345

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Pro Val His Thr Ala Ser Pro Pro Val His Val Ala Ser Pro Pro Val 360 355 365 His Val Ala Ser Pro Pro Val His Val Ala Tyr Pro Pro Val His Val 375 380 Ala Ser Pro Pro Val His Val Ala Ser Pro Pro Val His Val Ala Ser 390 395 Pro Pro Val Ser Cys Ser Gly Asp Ser Thr Ser Asp Cys Phe Pro Pro 405 410 415 Gln Pro Gly Ala Val Phe Pro His Ser Leu Ala Pro Ser Leu Gly Gly 425 420 Trp Ser His Leu Val Ala Ala Leu Pro

<210> 1784 <211> 151 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(148)

<223> Xaa = any amino acid or nothing

<400> 1784 Gly Gly Val Asn Arg Pro Arg Ser Glu Thr Glu Gln Val Lys Thr Pro Val Leu Ile Ser Ser Trp Asp Tyr Arg His Pro Pro Pro Arg Pro Ala 25 20 Ser Phe Phe Val Phe Leu Val Xaa Thr Gly Phe Thr Ala Leu Ala Arg 35 40 Met Val Leu Ile Ser Trp Pro Cys Asp Leu Pro Thr Ser Ala Ser Gln 55 50 . 60 Ser Ala Gly Ile Thr Gly Val Arg His His Ala Arg Leu Leu Tyr Phe 70 75 Glu Gln Glu Ser His Ser Val Thr Gln Ala Gly Trp Val Gln Trp His 85 90 95 90 85 Asn Leu Gly Ser Leu Gln Pro Leu Ser Leu Glu Asp Arg Leu Ser Pro 100 105 Gly Val Leu Gly Cys Ser Ala Leu Cys Arg Ser Gly Val Arg Thr Lys 115 120 125 Phe Gly Ile Asn Met Val Thr Ser Arg Glu Arg Gly Thr Thr Arg Leu 135 Pro Lys Glu Gly

<210> 1785 <211> 1056 <212> PRT

<213> Homo sapiens

<400> 1785 Met Ser Leu Val Arg Ala Ala Leu Glu Ala Leu Asp Glu Leu Asp Leu 10 15 Phe Gly Val Lys Gly Gly Pro Gln Ser Val Ile His Val Leu Ala Asp 25 Glu Val Gln His Cys Gln Ser Ile Leu Asn Ser Leu Leu Pro Arg Ala 40 45 3.5 Ser Thr Ser Lys Glu Val Asp Ala Ser Leu Leu Ser Val Val Ser Phe 55

Pro Ala Phe Ala Val Glu Asp Ser Gln Leu Val Glu Leu Thr Lys Gln Glu Ile Ile Thr Lys Leu Gln Gly Arg Tyr Gly Cys Cys Arg Phe Leu Arg Asp Gly Tyr Lys Thr Pro Lys Glu Asp Pro Asn Arg Leu Tyr Tyr Glu Asn Pro Ala Glu Leu Lys Leu Phe Glu Asn Ile Glu Cys Glu Trp Pro Leu Phe Trp Thr Tyr Phe Ile Leu Asp Gly Val Phe Ser Gly Asn Ala Glu Gln Val Gln Glu Tyr Lys Glu Ala Leu Glu Ala Val Leu Ile Lys Gly Lys Asn Gly Val Pro Leu Leu Pro Glu Leu Tyr Ser Val Pro Pro Asp Arg Val Asp Glu Glu Tyr Gln Asn Pro His Thr Val Asp Arg Val Pro Met Gly Lys Leu Pro His Met Trp Gly Gln Ser Leu Tyr Ile Leu Gly Ser Leu Met Ala Glu Gly Phe Leu Ala Pro Gly Glu Ile Asp Pro Leu Asn Arg Arg Phe Ser Thr Val Pro Lys Pro Asp Val Val Val Gln Val Tyr Pro Ser Leu Pro His Gly Cys Ser Ser Lys Ser Pro Ser His Gln Cys Thr Ile Ile Ser Ile Arg Thr Thr Arg Lys Ile Thr Ala Pro Val Ser Ile Leu Ala Glu Thr Glu Glu Ile Lys Thr Ile Leu Lys Asp Lys Gly Ile Tyr Val Glu Thr Ile Ala Glu Val Tyr Pro Ile Arg Val Gln Pro Ala Arg Ile Leu Ser His Ile Tyr Ser Ser Leu Glu Ile 310 315 Phe Leu Pro Phe Leu Asn Ser Val Ser Gly Cys Asn Asn Arg Met Lys Leu Ser Gly Arg Pro Tyr Arg His Met Gly Val Leu Gly Thr Ser Lys Leu Tyr Asp Ile Arg Lys Thr Ile Phe Thr Phe Thr Pro Gln Phe Ile Asp Gln Gln Gln Phe Tyr Leu Ala Leu Asp Asn Lys Met Ile Val Glu Met Leu Arg Thr Asp Leu Ser Tyr Leu Cys Ser Arg Trp Arg Met Thr Gly Gln Pro Thr Ile Thr Phe Pro Ile Ser His Ser Met Leu Asp Glu Asp Gly Thr Ser Leu Asn Ser Ser Ile Leu Ala Ala Leu Arg Lys Met Gln Asp Gly Tyr Phe Gly Gly Ala Arg Val Gln Thr Gly Lys Leu Ser Glu Phe Leu Thr Thr Ser Cys Cys Thr His Leu Ser Phe Met Asp Pro Gly Pro Glu Gly Lys Leu Tyr Ser Glu Asp Tyr Asp Asp Asn Tyr Asp Tyr Leu Glu Ser Gly Asn Trp Met Asn Asp Tyr Asp Ser Thr Ser His Ala Arg Cys Gly Asp Glu Val Ala Arg Tyr Leu Asp His Leu Leu Ala 500 505 510His Thr Ala Pro His Pro Lys Leu Ala Pro Thr Ser Gln Lys Gly Gly Leu Asp Arg Phe Gln Ala Ala Val Gln Thr Thr Cys Asp Leu Met Ser Leu Val Thr Lys Ala Lys Glu Leu His Val Gln Asn Val His Met Tyr Leu Pro Thr Lys Leu Phe Gln Ala Ser Arg Pro Ser Phe Asn Leu Leu 

Asp Ser Pro His Pro Arg Gln Glu Asn Gln Val Pro Ser Val Arg Val 580 585 Glu Ile His Leu Pro Arg Asp Gln Ser Gly Glu Val Asp Phe Lys Ala 600 605 Leu Val Leu Gln Leu Lys Glu Thr Ser Ser Leu Gln Glu Gln Ala Asp 615 620 Ile Leu Tyr Met Leu Tyr Thr Met Lys Gly Pro Asp Trp Asn Thr Glu 635 630 Leu Tyr Asn Glu Arg Ser Ala Thr Val Arg Glu Leu Leu Thr Glu Leu 650 655 645 Tyr Gly Lys Val Gly Glu Ile Arg His Trp Gly Leu Ile Arg Tyr Ile 665 670 660 Ser Gly Ile Leu Arg Lys Lys Val Glu Ala Leu Asp Glu Ala Cys Thr 680 675 Asp Leu Leu Ser His Gln Lys His Leu Thr Val Gly Leu Pro Pro Glu 695 700 Pro Arg Glu Lys Thr Ile Ser Ala Pro Leu Pro Tyr Glu Ala Leu Thr 715 710 Gln Leu Ile Asp Glu Ala Ser Glu Gly Asp Met Ser Ile Ser Ile Leu 730 , 725 Thr Gln Glu Ile Met Val Tyr Leu Ala Met Tyr Met Arg Thr Gln Pro 745 Gly Leu Phe Ala Glu Met Phe Arg Leu Arg Ile Gly Leu Ile Ile Gln 760 765 Val Met Ala Thr Glu Leu Ala His Ser Leu Arg Cys Ser Ala Glu Glu 780 775 Ala Thr Glu Gly Leu Met Asn Leu Ser Pro Ser Ala Met Lys Asn Leu 795 790 Leu His His Ile Leu Ser Gly Lys Glu Phe Gly Val Glu Arg Ser Val 805 810 Arg Pro Thr Asp Ser Asn Val Ser Pro Ala Ile Ser Ile His Glu Ile 820 825 Gly Ala Val Gly Ala Thr Lys Thr Glu Arg Thr Gly Ile Met Gln Leu 845 840 835 Lys Ser Glu Ile Lys Gln Ser Pro Gly Thr Ser Met Thr Pro Ser Ser 855 860 Gly Ser Phe Pro Ser Ala Tyr Asp Gln Gln Ser Ser Lys Asp Ser Arg 870 875 Gln Gly Gln Trp Gln Arg Arg Arg Leu Asp Gly Ala Leu Asn Arg 885 890 Val Pro Val Gly Phe Tyr Gln Lys Val Trp Lys Val Leu Gln Lys Cys 900 905 His Gly Leu Ser Val Glu Gly Phe Val Leu Pro Ser Ser Thr Thr Arg 920 925 Glu Met Thr Pro Gly Glu Ile Lys Phe Ser Val His Val Glu Ser Val 935 940 Leu Asn Arg Val Pro Gln Pro Glu Tyr Arg Gln Leu Leu Val Glu Ala 950 955 Ile Leu Val Leu Thr Met Leu Ala Asp Ile Glu Ile His Ser Ile Gly 970 965 Ser Ile Ile Ala Val Glu Lys Ile Val His Ile Ala Asn Asp Leu Phe 985 990 980 Leu Gln Glu Gln Lys Thr Leu Gly Ala Asp Asp Thr Met Leu Ala Lys 1000 1005 Asp Pro Ala Ser Gly Ile Cys Thr Leu Leu Tyr Asp Ser Ala Pro Ser 1015 1020 Gly Arg Phe Gly Thr Met Thr Tyr Leu Ser Lys Ala Ala Ala Thr Tyr 1035 1030 Val Gln Glu Phe Leu Pro His Ser Ile Cys Ala Met Gln 1050 1053

<211> 107
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(107)
<223> Xaa = any amino acid or nothing

<400> 1786 Cys Pro Xaa Leu Thr Trp Glu Leu Leu Glu Val Lys Lys Ala Glu Val 5 10 Leu Gln Asp Ser Leu Asp Gly Arg Tyr Ser Thr Pro Ser Ser Cys Leu 25 Glu Gln Pro Asp Ser Cys Arg Pro Tyr Gly Arg Ser Phe Tyr Ala Leu 45 40 Glu Glu Lys His Val Ile Phe Ser Leu Asp Val Gly Glu Thr Asp Asn 55 Lys Gly Lys Gly Lys Thr Ile Arg Gly Ile Xaa Thr Phe Lys Gly Arg 70 75 Lys Gly Gly Thr Tyr Gln Arg Glu His Asp Ala Asn Pro Leu Ala Pro 90 85 Xaa Ser Ala Arg Ser Cys Trp Met Arg Lys Gly 100 105 107

<210> 1787 <211> 740 <212> PRT <213> Homo sapiens

<400> 1787 Ala Val Arg Ala Glu Pro Gly Leu Glu Glu Leu Ser Ser Gly Leu Arg 1 5 10 Ala His Ser Pro Ser Ala Thr Thr Val Cys Glu Pro Glu Ala Gln Gly 20 25 Ser Ala Ser Gly Cys Arg Tyr Ala Ala His Pro His Trp Gly Leu Gly 40 Gly Ala Ala Ala Gly Gly Ser Trp Glu Pro Gln Pro Pro Arg Pro 55 60 Val Cys Glu Pro Ala Gly Arg Gly Lys Pro His Pro Pro Ala Ala Pro 70 75 Arg Ser Pro Leu Leu Pro Gly Ser Arg Arg Arg Pro His Ala Ala Gln 85 90 95 Pro Gly Ala Arg Ala Arg Thr Ser Pro Pro Pro Ala Ser Ala Arg Asn 105 Met Ala Ala Arg Pro Ala Ala Thr Leu Ala Trp Ser Leu Leu Leu Leu 115 120 125 Ser Ser Ala Leu Leu Arg Glu Gly Cys Arg Ala Arg Phe Val Ala Glu 135 140 Arg Asp Ser Glu Asp Asp Gly Glu Glu Pro Val Val Phe Pro Glu Ser 150 155 Pro Leu Gln Ser Pro Thr Val Leu Val Ala Val Leu Ala Arg Asn Ala 170 165 Ala His Thr Leu Pro His Phe Leu Gly Cys Leu Glu Arg Leu Asp Tyr 185 Pro Lys Ser Arg Met Ala Ile Trp Ala Ala Thr Asp His Asn Val Asp 200 Asn Thr Thr Glu Ile Phe Arg Glu Trp Leu Lys Asn Val Gln Arg Leu 215 220 Tyr His Tyr Val Glu Trp Arg Pro Met Asp Glu Pro Glu Ser Tyr Pro 230 235

														•	
Asp	Glu	Ile	Gly	Pro 245	rys	His	Trp	Pro	Thr 250	Ser	Arg	Phe	Ala	His 255	Val
Met	Lys	Leu	Arg 260	Gln	Ala	Ala	Leu	Arg 265	Thr	Ala	Arg	Glu	Lys 270	Trp	Ser
qaA	Tyr		Leu	Phe	Ile	Asp			Asn	Phe	Leu	Thr 285	Asn	Pro	Gln
Thr		275 Asn	Leu	Leu	Ile		280 Glu	Asn	Lys	Thr	Ile 300		Ala	Pro	Met
Leu	290 Glu	Ser	Arg	Gly	Leu	295 Tyr	Ser	Asn	Phe	Trp		Gly	Ile	Thr	Pro
305 Lvs	Glv	Phe	Tyr	Lvs	310 Arg	Thr	Pro	Asp	Tyr	315 Val	Gln	Ile	Arg	Glu	320 Trp
				325					330					335	
			Gly 340					345					350		
		355	Arg				360					365			
Eis	Gln 370	Asp	Tyr	Thr	Trp	Thr 375	Phe	Asp	qaA	Ile	Ile 380	Val	Phe	Ala	Phe
		Arg	Gln	Ala	Gly 390	Ile	Gln	Met	Tyr	Leu 395	Cys	Asn	Arg		His 400
385 Tyr	Gly	Tyr	Leu	Pro		Pro	Leu	Lys	Pro		Gln	Thr	Leu		
_	_			405					410					415	
_			Asn 420					425					430		
Pro	Pro	Met 435	Glu	Pro	Ser	Gln	Tyr 440	Val	Ser	Val	Val	Pro 445		Tyr	Pro
	450		Gly			455					460				
	Gly	Gln	Gly	Gly	Asp 470	Arg	Trp	Leu	Arg	Thr 475	Leu	Tyr	Glu	Gln	Glu 480
465 Ile	Glu	Val	Lys	Ile 485		Glu	Ala	Val	Asp		Lys	Ala	Leu	Asn 495	
Ser	Gln	Leu	<b>L</b> уs 500		Leu	Asn	Ile	Glu 505		Leu	Pro	Gly	Tyr 510		Asp
Pro	Tyr	Ser 515	Ser	Arg	Pro	Leu	Thr 520		Gly	Glu	Ile	Gly 525	Сув	Phe	Leu
Ser			Ser	Val	Trp			Val	Ile	Asp	Arg 540	Glu	Leu	Glu	Lys
Thr	530 Leu	Val	Ile	Glu	Asp	535 Asp	Val	Arg	Phe	Glu		Gln	Phe	Lys	
545 Tous	Len	Met.	Lys	Leu	550 Met	Asp	Asn	Ile	Asp	555 Gln	Ala	Gln	Leu	Asp	560 Trp
-				565					570					575	
			Tyr 580					585					590		
•		595	Pro				600					605			
	610					615					620				Val
_	Ala	Asn	Pro	Phe	Gly 630		Met	Leu	Pro	Val 635		Glu	Phe	Leu	Pro 640
625 Val	Met	Tyr	Asn	Lys 645			Val	Ala	Glu 650	Tyr		Glu	Tyr	Tyr 655	Glu
Ser	Arg	Asp	Leu 660	Lys	Ala	Phe	Ser	Ala 665	Glu		Leu	Leu	Ile 670	Tyr	Pro
Thr	His	Tyr 675	Thr		Gln	Pro	Gly 680	Tyr		Ser	Asp	Thr 685		Thr	Ser
Thr	Ile 690		Asp	Asn	Glu	Thr 695	Val		Thr	Asp	Trp 700	Asp		Thr	His
		Lys	Ser	Arg	Lys 710	Gln		Arg	Ile	Tyr 715	Ser		Ala	Lys	Asn 720
705 Thx	Glu	Ala	Leu				Thr	Ser		Asp		Val	Pro		Arg
Asp	Glu	Leu		725					730					735	

Asp Glu Leu 739

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<210> 1788
<211> 135
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (133)
<223> Kaa = any amino acid or nothing
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<400> 1788 Ile Phe Phe Asn Ser Ser Ser Leu Phe Cys Arg Val Phe Cys Leu Phe 5 10 Leu Arg Trp Ser Phe Thr Leu Val Ala Gln Ala Arg Val Gln Xaa Cys 20 25 Asn Leu Ser Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Xaa Phe Ser 35 40 Cys Leu Ser Pro Pro Arg Ser Xaa Asp Tyr Arg Arg Pro Pro Pro Arg 55 60 Pro Ala Asn Phe Leu Tyr Phe Xaa Xaa Arg Gln Gly Phe Thr Val Leu 70 Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Pro Pro Thr Ser 85 90 Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His Arg Ala Trp Pro 110 100 . 105 Val His Ala Ile Ser Thr His Ile Ser Leu Val Lys Thr Arg Pro Ser 115 Leu Thr Thr Leu Gly 130 133

<210> 1789 <211> 465 <212> PRT <213> Homo sapiens

<400> 1789. Leu Leu Gln Pro Ala Met Arg Lys Ser Pro Gly Leu Ser Asp Cys Leu 5 10 Trp Ala Trp Ile Leu Leu Ser Thr Leu Thr Gly Arg Ser Tyr Gly 20 25 Gln Pro Ser Leu Gln Asp Glu Leu Lys Asp Asn Thr Thr Val Phe Thr 40 Arg Ile Leu Asp Arg Leu Leu Asp Gly Tyr Asp Asn Arg Leu Arg Pro 55 60 Gly Leu Gly Glu Arg Val Thr Glu Val Lys Thr Asp Ile Phe Val Thr 70 75 Ser Phe Gly Pro Val Ser Asp His Asp Met Glu Tyr Thr Ile Asp Val 85 90 Phe Phe Arg Gln Ser Trp Lys Asp Glu Arg Leu Lys Phe Lys Gly Pro 100 105 Met Thr Val Leu Arg Leu Asn Asn Leu Met Ala Ser Lys Ile Trp Thr 115 120 125 Pro Asp Thr Phe Phe His Asn Gly Lys Lys Ser Val Ala His Asn Met 140 130 135 Thr Met Pro Asn Lys Leu Leu Arg Ile Thr Glu Asp Gly Thr Leu Leu 150 155 Tyr Thr Met Arg Leu Thr Val Arg Ala Glu Cys Pro Met Ala Phe Gly 170

Arg Asp Phe Pro Met Asp Ala His Ala Cys Pro Leu Lys Phe Gly Ser 185 180 Tyr Ala Tyr Thr Arg Ala Glu Val Val Tyr Glu Trp Thr Arg Glu Pro 205 200 195 Ala Arg Ser Val Val Val Ala Glu Asp Gly Ser Arg Leu Asn Gln Tyr 220 215 210 Asp Leu Leu Gly Gln Thr Val Asp Ser Gly Ile Val Gln Ser Ser Thr 235 230 Gly Glu Tyr Val Val Met Thr Thr His Phe His Leu Lys Arg Lys Ile 245 250 Gly Tyr Phe Val Ile Gln Thr Tyr Leu Pro Cys Ile Met Thr Val Ile 260 265 270 Leu Ser Gln Val Ser Phe Trp Leu Asn Arg Glu Ser Val Pro Ala Arg 280 285 275 Thr Val Phe Gly Val Thr Thr Val Leu Thr Met Thr Thr Leu Ser Ile 290 295 300 Ser Ala Arg Asn Ser Leu Pro Lys Val Ala Tyr Ala Thr Ala Met Asp 310 315 Trp Phe Ile Ala Val Cys Tyr Ala Phe Val Phe Ser Ala Leu Ile Glu 330 335 325 Phe Ala Thr Val Asn Tyr Phe Thr Lys Arg Gly Tyr Ala Trp Asp Gly 350 340 345 Lys Ser Val Val Pro Glu Lys Pro Lys Lys Val Lys Asp Pro Leu Ile 365 355 360 Lys Lys Asn Asn Thr Tyr Ala Pro Thr Ala Thr Ser Tyr Thr Pro Asn 380 375 Leu Ala Arg Gly Asp Pro Gly Leu Ala Thr Ile Ala Lys Ser Ala Thr 395 390 Ile Glu Pro Lys Glu Val Lys Pro Glu Thr Lys Pro Pro Glu Pro Lys 405 410 415 Lys Thr Phe Asn Ser Val Ser Lys Ile Asp Arg Leu Ser Arg Ile Ala 425 430 420 Phe Pro Leu Leu Phe Gly Ile Phe Asn Leu Val Tyr Trp Ala Thr Tyr 440 445 Leu Asn Arg Glu Pro Gln Leu Lys Ala Pro Thr Pro His Gln 455 460 462

<210> 1790 <211> 116 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(116) <223> Xaa = any amino acid or nothing

<400> 1790 Ser Thr Ser Ser Cys Phe Pro Ala Ala Ala Ala Ala Ile Met Arg Glu 10 Ile Val His Leu Gln Ala Gly Gln Cys Gly Asn Gln Ile Gly Ala Lys 25 20 Phe Trp Glu Val Ile Ser Asp Glu His Gly Ile Asp Pro Thr Gly Thr 40 Tyr His Gly Asp Ser Asp Leu Gln Leu Glu Arg Ile Asn Val Tyr Tyr 60 55 Asn Glu Ala Thr Gly Glu Ala Pro Val Pro Ser Pro Thr Ala Leu Arg 75 80 70 Gly Pro Arg Gly Pro Cys Leu Gly Xaa Arg Pro Pro Val Pro Ala Gly 90 85 Gly Lys Tyr Val Pro Arg Ala Val Leu Val Asp Met Glu Pro Gly Thr 105 · 100

Met Asp Ser Val 115 116

> <210> 1791 <211> 583 <212> PRT <213> Homo sapiens

<400> 1791 Phe Val Ala Val Ala Gly Ala Val Ser Gly Glu Pro Leu Val His Trp 10 Cys Thr Gln Gln Leu Arg Lys Thr Phe Gly Leu Asp Val Ser Glu Glu 20 25 Ile Ile Gln Tyr Val Leu Ser Ile Glu Ser Ala Glu Glu Ile Arg Glu 40 Tyr Val Thr Asp Leu Leu Gln Gly Asn Glu Gly Lys Lys Gly Gln Phe 55 60 Ile Glu Glu Leu Ile Thr Lys Trp Gln Lys Asn Asp Gln Glu Leu Ile 75 70 Ser Asp Pro Leu Gln Gln Cys Phe Lys Lys Asp Glu Ile Leu Asp Gly 85 90 Gln Lys Ser Gly Asp His Leu Lys Arg Gly Arg Lys Lys Gly Arg Asn 105 Arg Gln Glu Val Pro Ala Phe Thr Glu Pro Asp Thr Thr Ala Glu Val 120 125 115 Lys Thr Pro Phe Asp Leu Ala Lys Ala Gln Glu Asn Ser Asn Ser Val 130 135 140 Lys Lys Lys Thr Lys Phe Val Asn Leu Tyr Thr Arg Glu Gly Gln Asp 155 150 Arg Leu Ala Val Leu Leu Pro Gly Arg His Pro Cys Asp Cys Leu Gly 170 Gln Lys His Lys Leu Ile Asn Asn Cys Leu Ile Cys Gly Arg Ile Val 180 185 Cys Glu Gln Glu Gly Ser Gly Pro Cys Leu Phe Cys Gly Thr Leu Val 200 205 195 Cys Thr His Glu Glu Gln Asp Ile Leu Arg Gly Asp Ser Asn Lys Ser 215 220 Gln Lys Leu Leu Lys Lys Leu Met Ser Gly Val Glu Asn Ser Gly Lys 230 235 Val Asp Ile Ser Thr Lys Asp Leu Leu Pro His Gln Glu Leu Arg Ile 250 255 245 Lys Ser Gly Leu Glu Lys Ala Ile Lys His Lys Asp Lys Leu Leu Glu 260 265 Phe Asp Arg Thr Ser Ile Arg Arg Thr Gln Val Ile Asp Asp Glu Ser 280 Asp Tyr Phe Ala Ser Asp Ser Asn Gln Trp Leu Ser Lys Leu Glu Arg 295 300 Glu Thr Leu Gln Lys Arg Glu Glu Glu Leu Arg Glu Leu Arg His Ala 310 315 Ser Arg Leu Ser Lys Lys Val Thr Ile Asp Phe Ala Gly Arg Lys Ile 325 330 Leu Glu Glu Glu Asn Ser Leu Ala Glu Tyr His Ser Arg Leu Asp Glu 340 345 350 Thr Ile Gln Ala Ile Ala Asn Gly Thr Leu Asn Gln Pro Leu Thr Lys 360 365 Leu Asp Arg Ser Ser Glu Glu Pro Leu Gly Val Leu Val Asn Pro Asn 375 Met Tyr Gln Ser Pro Pro Gln Trp Val Asp His Thr Gly Ala Ala Ser 390 395 Gln Lys Lys Ala Phe Arg Ser Ser Gly Phe Gly Leu Glu Phe Asn Ser 405 410

Phe Gln His Gln Leu Arg Ile Gln Asp Gln Glu Phe Gln Glu Gly Phe 420 425 Asp Gly Gly Trp Cys Leu Ser Val His Gln Pro Trp Ala Ser Leu Leu 445 440 Val Arg Gly Ile Lys Arg Val Glu Gly Arg Ser Trp Tyr Thr Pro His 455 460 Arg Gly Arg Leu Trp Ile Ala Ala Thr Ala Lys Lys Pro Ser Pro Gln 475 470 Glu Val Ser Glu Leu Gln Ala Thr Tyr Arg Leu Leu Arg Gly Lys Asp 485 490 Val Glu Phe Pro Asn Asp Tyr Pro Ser Gly Cys Leu Leu Gly Cys Val 500 505 510 Asp Leu Ile Asp Cys Leu Ser Gln Lys Gln Phe Lys Glu Gln Phe Pro 515 520 525 Asp Ile Ser Gln Glu Ser Asp Ser Pro Phe Val Phe Ile Cys Lys Asn 530 535 Pro Gln Glu Met Val Val Lys Phe Pro Ile Lys Gly Asn Pro Lys Ile 550 555 Trp Lys Leu Asp Ser Lys Ile His Gln Gly Ala Lys Lys Gly Leu Met 570 565 Lys Gln Asn Lys Ala Val 580 582

<210> 1792 <211> 681 <212> PRT <213> Homo sapiens

<221> misc_feature
<222> (1)...(670)
<223> Xaa = any amino acid or nothing

<400> 1792 Met Pro Arg Ser His Thr Gly Glu Arg Leu Cys Glu Gly Lys Glu Gly 5 10 Ser Gln Cys Ala Glu Asn Phe Ser Pro Asn Leu Ser Val Thr Lys Lys 20 25 30 Thr Ala Gly Val Lys Pro Tyr Glu Cys Thr Ile Cys Gly Lys Ala Phe 35 40 45 Met Arg Leu Ser Ser Leu Thr Arg His Met Arg Ser His Thr Ala Ile 50 55 Arg Ala Ile Glu Lys Pro Tyr Lys Cys Lys Glu Cys Gly Arg Ala Phe 75 70 Ser Leu Ser Gln Ile Leu Ser Lys His Glu Arg Ser His Thr Gly Glu 90 95 85 Lys Pro Tyr Lys Cys Lys Gln Cys Gly Lys Thr Phe Ile Tyr His Gln 105 110 100 Pro Phe Gln Arg His Glu Arg Thr His Ile Gly Glu Lys Pro Tyr Glu 115 120 125 Cys Lys Gln Cys Gly Lys Ala Leu Ser Cys Ser Ser Ser Leu Arg Val 135 140 His Glu Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Gln Cys 150 155 Gly Lys Ala Phe Ser Cys Ser Ser Ser Ile Arg Val His Glu Arg Thr 165 170 175 His Thr Gly Glu Lys Pro Tyr Ala Cys Lys Glu Cys Gly Lys Ala Phe 185 180 Ile Ser Thr Thr Ser Val Leu Thr His Met Ile Thr His Asn Gly Asp 195 200 205 Arg Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Ile Phe Pro Ser 215 220

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Phe Leu Arg Val His Glu Arg Ile His Thr Gly Glu Lys Pro Tyr Lys
                                     235
Cys Lys Gln Cys Gly Lys Ala Phe Arg Trp Ser Thr Ser Ile Gln Ile
             245
                                 250
His Glu Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Glu Cys
          260
                            265
                                                270
Gly Lys Ser Phe Ser Ala Arg Pro Ala Phe Arg Val His Val Arg Val
                         280
                                           285
His Thr Gly Glu Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe
                    295
Ser Arg Ile Ser Tyr Phe Arg Ile His Glu Arg Thr His Thr Gly Glu
                          315
                310
Lys Pro Tyr Glu Cys Lys Lys Cys Gly Lys Thr Phe Asn Tyr Pro Leu
              325
                                330
Asp Leu Lys Ile His Lys Arg Asn His Thr Gly Glu Lys Pro Tyr Glu
                            345
Cys Lys Glu Cys Ala Lys Thr Phe Ile Ser Leu Glu Asn Phe Arg Arg
                                 365
                        360
His Met Ile Thr His Thr Gly Asp Gly Pro Tyr Lys Cys Arg Asp Cys
                                        380
                      375
Gly Lys Val Phe Ile Phe Pro Ser Ala Leu Arg Thr His Glu Arg Thr
         390
                               395
His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Ala Phe
                                410
           405
Ser Cys Ser Ser Tyr Ile Arg Ile His Lys Arg Thr His Thr Gly Glu
                             425
                                                430
Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ile Tyr Pro Thr
                        440
                                  · 445
Ser Phe Gln Gly His Met Arg Met His Thr Gly Glu Lys Pro Tyr Lys
                     455
                                        460
Cys Lys Glu Cys Gly Lys Ala Phe Ser Leu His Ser Ser Phe Arg Arg
                  470
                           475
His Thr Arg Ile His Asn Tyr Glu Lys Pro Leu Glu Cys Xaa Gln Cys
                                490
Gly Lys Ala Phe Ser Val Ser Thr Ser Leu Lys Lys Pro Met Arg Asn
                             505
Ala Gln Ser Asp Arg Lys Leu Tyr Lys Cys Glu Lys Xaa Glu Lys Val
                         520
Phe Asn Ser Asn Arg Cys Phe Gln Ser Cys Glu Asn Ser His Xaa Arg
                     535
                                        540
Glu Lys Ser Cys Gln Cys Lys Xaa Tyr Arg Lys Arg Asp Thr Arg Xaa
                  550
                                     555
Phe Met Tyr Ser Gln Val Pro His Asn His Val Ser Val Ser Asn Gly
                              570
            565
Pro Tyr Arg Cys Gly Ser Pro Ile Arg Leu Tyr Asn Tnr Xaa Asn Ile
                                       590
                            585
          580
Ser Ile Asn Arg Asn Leu Val Ala Val Val Thr Pro Xaa Cys Ser Thr
                         600
Leu Phe Lys Cys Leu Trp Cys Trp Cys Lys Arg Ala Ala Leu Ser Val
                     615
                                       -620
Val Xaa Ile Val Gln Asp Ser Gly Arg Gly Arg Trp Leu Thr Pro Val
                                    635
                 630
Ile Pro Ala Leu Trp Glu Ala Lys Ala Gly Gly Ser Arg Gly Gln Glu
                                 650
Ile Lys Thr Ile Leu Ala Asn Thr Val Lys Pro His Leu Tyr
          660
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<210> 1793

<211> 58

<212> PRT

<213> Homo sapiens

<221> misc_feature <222> (1)...(58) <223> Xaa = any amino acid or nothing

<210> 1794 <211> 475 <212> PRT <213> Homo sapiens

<400> 1794 His Leu Phe Phe Ser Leu Phe Leu Ala Ala Met Ala Met Thr Gly Ser 1 5 10 Thr Pro Cys Ser Ser Met Ser Asn His Thr Lys Glu Arg Val Thr Met 20 25 Thr Lys Val Thr Leu Glu Asn Phe Tyr Ser Asn Leu Ile Ala Gln His 45 35 40 Glu Glu Arg Glu Met Arg Gln Lys Lys Leu Glu Lys Val Met Glu Glu 50 55 60 Glu Gly Leu Lys Asp Glu Glu Lys Arg Leu Arg Arg Ser Ala His Ala 65 70 Arg Lys Glu Thr Glu Phe Leu Arg Leu Lys Arg Thr Arg Leu Gly Leu 90 85 Glu Asp Phe Glu Ser Leu Lys Val Ile Gly Arg Gly Ala Phe Gly Glu 105 100 Val Arg Leu Val Gln Lys Lys Asp Thr Gly His Val Tyr Ala Met Lys 115 120 125 Ile Leu Arg Lys Ala Asp Met Leu Glu Lys Glu Gln Val Gly His Ile 130 135 140 Arg Ala Glu Arg Asp Ile Leu Val Glu Ala Asp Ser Leu Trp Val Val 145 150 155 Lys Met Phe Tyr Ser Phe Gln Asp Lys Leu Asn Leu Tyr Leu Ile Met 170 165 Glu Phe Leu Pro Gly Gly Asp Met Met Thr Leu Leu Met Lys Lys Asp 185 190 180 Thr Leu Thr Glu Glu Glu Thr Gln Phe Tyr Ile Ala Glu Thr Val Leu 200 205 195 Ala Ile Asp Ser Ile His Gln Leu Gly Phe Ile His Arg Asp Ile Lys 210 215 220 Pro Asp Asn Leu Leu Leu Asp Ser Lys Gly His Val Lys Leu Ser Asp 225 230 235 Phe Gly Leu Cys Thr Gly Leu Lys Lys Ala His Arg Thr Glu Phe Tyr 245 250 255 Arg Asn Leu Asn His Ser Leu Pro Ser Asp Phe Thr Phe Gln Asn Met 265 270 260 Asn Ser Lys Arg Lys Ala Glu Thr Trp Lys Arg Asn Arg Arg Gln Leu 275 280 285 280 275 Ala Phe Ser Thr Val Gly Thr Pro Asp Tyr Ile Ala Pro Glu Val Phe 290 295 300 Met Gln Thr Gly Tyr Asn Lys Leu Cys Asp Trp Trp Ser Leu Gly Val 315 310

Ile Met Tyr Glu Met Leu Ile Gly Tyr Pro Pro Phe Cys Ser Glu Thr 325 330 Pro Gln Glu Thr Tyr Lys Lys Val Met Asn Trp Lys Glu Thr Leu Thr 350 340 345 Phe Pro Pro Glu Val Pro Ile Ser Glu Lys Ala Lys Asp Leu Ile Leu 360 365 Arg Phe Cys Cys Glu Trp Glu His Arg Ile Gly Ala Pro Gly Val Glu 375 380 Glu Ile Lys Ser Asn Ser Phe Phe Glu Gly Val Asp Trp Glu His Ile 390 395 Arg Glu Arg Pro Ala Ala Ile Ser Ile Glu Ile Lys Ser Ile Asp Asp 410 Thr Ser Asn Phe Asp Glu Phe Pro Glu Ser Asp Ile Leu Lys Pro Thr 420 425 Val Ala Thr Ser Asn His Pro Glu Thr Asp Tyr Lys Asn Lys Asp Trp 440 Val Phe Ile Asn Tyr Thr Tyr Lys Arg Phe Glu Gly Leu Thr Ala Arg 455 Gly Ala Ile Pro Ser Tyr Met Lys Ala Ala Lys

<210> 1795 <211> 2056 <212> PRT

<213> Homo sapiens

<400> 1795 Arg Thr Arg Gly Ile Glu Lys Arg Phe Ala Tyr Ser Phe Leu Gln Gln 10 Leu Ile Arg Tyr Val Asp Glu Ala His Gln Tyr Ile Leu Glu Phe Asp 25 Gly Gly Ser Arg Gly Lys Gly Glu His Phe Pro Tyr Glu Gln Glu Ile 40 45 Lys Phe Phe Ala Lys Val Val Leu Pro Leu Ile Asp Gln Tyr Phe Lys 55 60 Asn His Arg Leu Tyr Phe Leu Ser Ala Ala Ser Arg Pro Leu Cys Ser 70 75 Gly Gly His Ala Ser Asn Lys Glu Lys Glu Met Val Thr Ser Leu Phe 90 85 Cys Lys Leu Gly Val Leu Val Arg His Arg Ile Ser Leu Phe Gly Asn 100 105 110 Asp Ala Thr Ser Ile Val Asn Cys Leu His Ile Leu Gly Gln Thr Leu 120 Asp Ala Arg Thr Val Met Lys Thr Gly Leu Glu Ser Val Lys Ser Ala 135 140 Leu Arg Ala Phe Leu Asp Asn Ala Ala Glu Asp Leu Glu Lys Thr Met 150 155 Glu Asn Leu Lys Gln Gly Gln Phe Thr His Thr Arg Asn Gln Pro Lys 170 Gly Val Thr Gln Ile Ile Asn Tyr Thr Thr Val Ala Leu Leu Pro Met 180 185 190 Leu Ser Ser Leu Phe Glu His Ile Gly Gln His Gln Phe Gly Glu Asp 195 200 205 Leu Ile Leu Glu Asp Val Gln Val Ser Cys Tyr Arg Ile Leu Thr Ser 215 220 Leu Tyr Ala Leu Gly Thr Ser Lys Ser Ile Tyr Val Glu Arg Gln Arg 230 235 Ser Ala Leu Gly Glu Cys Leu Ala Ala Phe Ala Gly Ala Phe Pro Val 245 250 255 Ala Phe Leu Glu Thr His Leu Asp Lys His Asn Ile Tyr Ser Ile Tyr

Asn	Thr	Lys	Ser	Ser	Arg	Glu	Arg	Ala	Ala	Leu	Ser	Leu	Pro	Thr	Asn
Val	Glu	275 Asp	Val	Cys	Pro	Asn	280 Ile	Pro	Ser	Leu	Glu	285 Lys	Leu	Met	Glu
	290		Glu			295					300				
305					310					315					320
			Glu	325					330					335	
-			His 340					345					350		
Cys	Thr	<b>Ala</b> 355	Leu	Asn	Ser	Glu	His 360	Met	Asn	Thr	Leu	Leu 365	Glу	Asn	Ile
Leu	Lys 370	Ile	Ile	Tyr	Asn	Asn 375	Leu	Gly	lle	Asp	Glu 380	Gly	Ala	Trp	Met
Lys 385	Arg	Leu	Ala	Val	Phe 390	Ser	Gln	Pro	Ile	Ile 395	Asn	Lys	Val	Lys	Pro 400
Gln	Leu	Leu	Lys	Thr 405	His	Phe	Leu	Pro	Leu 410	Met	Glu	Lys	Leu	Lys 415	ГÀЗ
Lys	Ala	Ala	Thr 420		Val	Ser	Glu	Glu 425	Asp	His	Leu	Lys	Ala 430	Glu	Ala
Arg	Gly	Asp 435	Met	Ser	Glu	Ala	Glu 440	Leu	Leu	Ile	Leu	Asp 445	Glu	Phe	Thr
	450		Arg			455					460				
Gly 465	qsA	Tyr	Asn	Arg	Ala 470	Lys	Trp	Leu	Lys	Glu 475	Pro	Asn	Pro	Glu	Ala 480
			Phe	485					490					495	
			Phe 500					505					510		
		515	Met				520					525			
_	530		Val			535					540				
545		_	Ser		550					555					560
			Ile	565					570					575	
			<b>Ala</b> 580					585					590		
		595	Ile				600					605			
_	610		Ile			615					.620				
625			Asp		630					635					640
			Asn	645					650					655	
_			His 660					665					670		
		675					680					685			
	690		Arg			695					700				
705				•	710					715					Glu 720
				725					730					735	
			740					745					750		Leu
		755					760					765			Cys
Lys	Leu 770	Glu	Glu	Asp	Phe	Leu 775		Met	Ala	Tyr	Ala 780		Ile	Met	Ala

Lys Ser Cys His Asp Glu Glu Asp Asp Asp Gly Glu Glu Glu Val Lys 795 Ser Phe Glu Glu Lys Glu Met Glu Lys Gln Lys Leu Leu Tyr Gln Gln 805 810 815 Ala Arg Leu His Asp Arg Gly Ala Ala Glu Met Val Leu Gln Thr Ile 820 825 830 Ser Ala Ser Lys Gly Glu Thr Gly Pro Met Val Ala Ala Thr Leu Lys 840 Leu Gly Ile Ala Ile Leu Asn Gly Gly Asn Ser Thr Val Gln Gln Lys 855 860 850 Met Leu Asp Tyr Leu Lys Glu Lys Lys Asp Val Gly Phe Phe Gln Ser 870 875 Leu Ala Gly Leu Met Gln Ser Cys Ser Val Leu Asp Leu Asn Ala Phe 885 890 Glu Arg Gln Asn Lys Ala Glu Gly Leu Gly Met Val Thr Glu Glu Gly 905 900 Ser Gly Glu Lys Val Leu Gln Asp Asp Glu Phe Thr Cys Asp Leu Phe 920 Arg Phe Leu Gln Leu Leu Cys Glu Gly His Asn Ser Asp Phe Gln Asn 935 940 Tyr Leu Arg Thr Gln Thr Gly Asn Asn Thr Thr Val Asn Ile Ile Ile 950 955 Ser Thr Val Asp Tyr Leu Leu Arg Val Gln Glu Ser Ile Ser Asp Phe 965 970 Tyr Trp Tyr Tyr Ser Gly Lys Asp Val Ile Asp Glu Gln Gly Gln Arg 985 Asn Phe Ser Lys Ala Ile Gln Val Ala Lys Gln Val Phe Asn Thr Leu 1000 1005 995 Thr Glu Tyr Ile Gln Gly Pro Cys Thr Gly Asn Gln Gln Ser Leu Ala 1020 1015 His Ser Arg Leu Trp Asp Ala Val Val Gly Phe Leu His Val Phe Ala 1030 1035 His Met Gln Met Lys Leu Ser Gln Asp Ser Ser Gln Ile Glu Leu Leu 1045 1050 Lys Glu Leu Met Asp Leu Gln Lys Asp Met Val Val Met Leu Leu Ser 1060 1065 1070 Met Leu Glu Gly Asn Val Val Asn Gly Thr Ile Gly Lys Gln Met Val 1075 1080 1085 Asp Met Leu Val Glu Ser Ser Asn Asn Val Glu Met Ile Leu Lys Phe 1095 1100 Phe Asp Met Phe Leu Lys Leu Lys Asp Leu Thr Ser Ser Asp Thr Phe 1110 1115 Lys Glu Tyr Asp Pro Asp Gly Lys Gly Val Ile Phe Lys Arg Asp Phe 1125 1130 1135 His Lys Ala Met Glu Ser His Lys His Tyr Thr Gln Ser Glu Thr Glu 1140 1145 Phe Leu Leu Ser Cys Ala Glu Thr Asp Glu Asn Glu Thr Leu Asp Tyr 1155 1160 1165 Glu Glu Phe Val Lys Arg Phe His Glu Pro Ala Lys Asp Ile Gly Phe 1175 1180 Asn Val Ala Val Leu Leu Thr Asn Leu Ser Glu His Met Pro Asn Asp 1190 1195 1200 Thr Arg Leu Gln Thr Phe Leu Glu Leu Ala Glu Ser Val Leu Asn Tyr 1205 1210 1215 Phe Gln Pro Phe Leu Gly Arg Ile Glu Ile Met Gly Ser Ala Lys Arg 1220 1225 1230 Ile Glu Arg Val Tyr Phe Glu Ile Ser Glu Ser Ser Arg Thr Gln Trp 1240 1245 Glu Lys Pro Gln Val Lys Glu Ser Lys Arg Gln Phe Ile Phe Asp Val 1255 1260 Val Asn Glu Gly Gly Glu Lys Glu Lys Met Glu Leu Phe Val Asn Phe 1265 1270 1275 1280 Cys Glu Asp Thr Ile Phe Glu Met Gln Leu Ala Ala Gln Ile Ser Glu 1285 1290 1295

Ser Asp Leu Asn Glu Arg Ser Ala Asn Lys Glu Glu Ser Glu Lys Glu 1300 1305 Arg Pro Glu Glu Gln Gly Pro Arg Met Ala Phe Phe Ser Ile Leu Thr 1320 1325 1315 Val Arg Ser Ala Leu Phe Ala Leu Arg Tyr Asn Ile Leu Thr Leu Met 1335 1340 1330 Arg Met Leu Ser Leu Lys Ser Leu Lys Lys Gln Met Lys Lys Val Lys 1345 1350 1355 Lys Met Thr Val Lys Asp Met Val Thr Ala Phe Phe Ser Ser Tyr Trp 1365 1370 1375 Ser Ile Phe Met Thr Leu Leu His Phe Val Ala Ser Val Phe Arg Gly . 1380 1385 1390 Phe Phe Arg Ile Ile Cys Ser Leu Leu Leu Gly Gly Ser Leu Val Glu 1395 1400 1405 Gly Ala Lys Lys Ile Lys Val Ala Glu Leu Leu Ala Asn Met Pro Asp 1420 1415 1410 Pro Thr Gln Asp Glu Val Arg Gly Asp Gly Glu Glu Gly Glu Arg Lys 1425 1430 1435 1440 Pro Leu Glu Ala Ala Leu Pro Ser Glu Asp Leu Thr Asp Leu Lys Glu 1445 1450 1455 Leu Thr Glu Glu Ser Asp Leu Leu Ser Asp Ile Phe Gly Leu Asp Leu 1460 1465 . 1470 Lys Arg Glu Gly Gly Gln Tyr Lys Leu Ile Pro His Asn Pro Asn Ala 1475 1480 1485 Gly Leu Ser Asp Leu Met Ser Asn Pro Val Pro Met Pro Glu Val Gln 1500 1495 1490 Glu Lys Phe Gln Glu Gln Lys Ala Lys Glu Glu Glu Lys Glu Glu Lys 1510 1515 1520 Glu Glu Thr Lys Ser Glu Pro Glu Lys Ala Glu Gly Glu Asp Gly Glu 1525 1530 1535 Lys Glu Glu Lys Ala Lys Glu Asp Lys Gly Lys Gln Lys Leu Arg Gln 1540 1545 1550 Leu His Thr His Arg Tyr Gly Glu Pro Glu Val Pro Glu Ser Ala Phe 1555 1560 1565 Trp Lys Lys Ile Ile Ala Tyr Gln Gln Lys Leu Leu Asn Tyr Phe Ala 1575 1580 1570 Arg Asn Phe Tyr Asn Met Arg Met Leu Ala Leu Phe Val Ala Phe Ala 1585 1590 1595 1600 Ile Asn Phe Ile Leu Leu Phe Tyr Lys Val Ser Thr Ser Ser Val Val 1605 1610 1615 Glu Gly Lys Glu Leu Pro Thr Arg Ser Ser Ser Glu Asn Ala Lys Val 1620 Thr Ser Leu Asp Ser Ser Ser His Arg Ile Ile Ala Val His Tyr Val 1635 1640 1645 Leu Glu Glu Ser Ser Gly Tyr Met Glu Pro Thr Val Arg Ile Leu Pro 1655 1660' 1650 Ile Leu His Thr Val Ile Ser Phe Phe Cys Ile Ile Gly Tyr Tyr Cys 1670 1675 Leu Lys Val Pro Leu Val Ile Phe Lys Arg Glu Lys Glu Val Ala Arg 1690 1695 1685 Lys Leu Glu Phe Asp Gly Leu Tyr Ile Thr Glu Gln Pro Ser Glu Asp 1700 1705 1710 Asp Ile Lys Gly Gln Trp Asp Arg Leu Val Ile Asn Thr Gln Ser Phe 1720 1725 Pro Asn Asn Tyr Trp Asp Lys Phe Val Lys Arg Lys Val Met Asp Lys 1735 1740 1730 Tyr Gly Glu Phe Tyr Gly Arg Asp Arg Ile Ser Glu Leu Leu Gly Met 1750 1755 1745 Asp Lys Ala Ala Leu Asp Phe Ser Asp Ala Arg Glu Lys Lys Lys Pro 1765 1770 1775 Lys Lys Asp Ser Ser Leu Ser Ala Val Leu Asn Ser Ile Asp Val Lys 1780 1785 1790 Tyr Gln Met Trp Lys Leu Gly Val Val Phe Thr Asp Asn Ser Phe Leu 1805

Tyr Leu Ala Trp Tyr Met Thr Met Ser Val Leu Gly His Tyr Asn Asn 1810 1815 1820 Phe Phe Phe Ala Ala His Leu Leu Asp Ile Ala Met Gly Phe Lys Thr 1830 1835 1840 Leu Arg Thr Ile Leu Ser Ser Val Thr His Asn Gly Lys Gln Leu Val 1845 1850 Leu Thr Val Gly Leu Leu Ala Val Val Val Tyr Leu Tyr Thr Val Val 1860 1865 1870 Ala Phe Asn Phe Phe Arg Lys Phe Tyr Asn Lys Ser Glu Asp Gly Asp 1875 1880 1885 Thr Pro Asp Met Lys Cys Asp Asp Met Leu Thr Cys Tyr Met Phe His 1890 1895 1900 Met Tyr Val Gly Val Arg Ala Gly Gly Gly Ile Gly Asp Glu Ile Glu 1905 1910 1915 Asp Pro Ala Gly Asp Glu Tyr Glu Ile Tyr Arg Ile Ile Phe Asp Ile, 1925 1930 1935 Thr Phe Phe Phe Phe Val Ile Val Ile Leu Leu Ala Ile Ile Gln Gly 1940 1945 1950 Leu Ile Ile Asp Ala Phe Gly Glu Leu Arg Asp Gln Gln Glu Gln Val 1955 1960 1965 Lys Glu Asp Met Glu Thr Lys Cys Phe Ile Cys Gly Ile Gly Asn Asp 1970 1975 1980 Tyr Phe Asp Thr Val Pro His Gly Phe Glu Thr His Thr Leu Gln Glu .985 1990 1995 2000 His Asn Leu Ala Asn Tyr Leu Phe Phe Leu Met Tyr Leu Ile Asn Lys 2005 2010 2015 Asp Glu Thr Glu His Thr Gly Gln Glu Ser Tyr Val Trp Lys Met Tyr 2020 2025 2030 Gln Glu Arg Cys Trp Glu Phe Phe Pro Ala Gly Asp Cys Phe Arg Lys 2035 2040 2045 Gln Tyr Glu Asp Gln Leu Asn

<210> 1796 <211> 122 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(119) <223> Xaa = any amino acid or nothing

<400> 1796 Ala Gly Leu Glu Leu Leu Asn Ser Asp Asp Pro Pro Ala Leu Ala Ser 5 10 Gln Ser Ala Gly Ile Thr Gly Val Thr Arg Thr Pro Ser Leu Phe Phe 20 25 30 Xaa Asp Thr Val Leu Leu Cys Cys Ser Gly Trp Ser Ala Val Ala Pro 40 Ser Arg Leu Thr Ala Ala Leu Phe Ser Xaa Ala Gln Ala Val Cys Leu 55 60 Ser Leu Pro Arg Ser Trp Asp Tyr Arg Arg Trp Pro Pro His Pro Ala 65 70 75 80 75 70 Asn Phe Cys Ile Phe Cys Arg Asp Glu Ser Leu Ala Met Leu Pro Arg 90 Leu Val Ser Asn Ser Trp Thr Gln Ala Ile Leu Leu Pro Arg Pro Pro 100 105 Lys Met Leu Gly Leu Gln Val 115 119

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<210> 1797
<211> 180
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (177)
<223> Xaa = any amino acid or nothing
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<400> 1797 Leu Phe Val Gly Gly Pro Ile Cys Pro Glu Gly Ala Ser Gly Phe 10 Ala Pro Gly Pro Ala Pro Ala Pro Arg Val Gly Val Asp Ala Glu Val 20 25 Gly Arg Xaa Val Xaa Gly Ala Ala Ala Ser Gln Gly Ala Gly Ser Leu 40 35 Arg Pro Arg Pro Thr Gly Pro Gly His Pro Gly Ala Trp Leu Gln Val 55 Trp Gly Ala Ala Ala Val Cys Ala Gly Pro Ala Met Xaa Ala Val Arg Ala Lys Arg Gly Pro Arg Ala Gly Kaa Glu Pro Asn Ser Pro Trp Arg 90 85 Ser Gly Val Leu Ala Ala Arg Ala Val Gly Ala Gly Pro Trp Pro Xaa 100 110 105 Pro Xaa Pro Gly Cys Ser Xaa Ala Arg Gly Pro Ser Ser Arg Ser Ala 125 115 120 Pro Gly Leu Ala Ser Gly Pro Ala Ala Pro Leu Leu Gln Gly Val His 135 140 Ser Ser Ala Gly Pro Leu Leu Cys Tyr Ile Asn Gly Thr Leu Ala Leu 155 150 Gly Leu Lys Pro Xaa Xaa Ala Trp Gly Trp Gly Glu Trp Arg Pro Lys 165 170 Gly 177

<210> 1798 <211> 858 <212> PRT

<213> Homo sapiens

<400> 1798 Phe Arg Arg Lys Gly Gly Gly Pro Lys Asp Phe Gly Ala Gly Leu 10 Lys Tyr Asn Ser Arg His Glu Lys Val Asn Gly Leu Glu Glu Gly Val 20 25 Glu Phe Leu Pro Val Asn Asn Val Lys Lys Val Glu Lys His Gly Pro 35 40 Gly Arg Trp Val Val Leu Ala Ala Val Leu Ile Gly Leu Leu Leu Val 55 60 Leu Leu Gly Ile Gly Phe Leu Val Trp His Leu Gln Tyr Arg Asp Val 70 75 Arg Val Gln Lys Val Phe Asn Gly Tyr Met Arg Ile Thr Asn Glu Asn 90 85 Phe Val Asp Ala Tyr Glu Asn Ser Asn Ser Thr Glu Phe Val Ser Leu 105 110 100 Ala Ser Lys Val Lys Asp Ala Leu Lys Leu Leu Tyr Ser Gly Val Pro 115 120 125 Phe Leu Gly Pro Tyr His Lys Glu Ser Ala Val Thr Ala Phe Ser Glu 135

Gly Ser Val Ile Ala Tyr Tyr Trp Ser Glu Phe Ser Ile Pro Gln His Leu Val Glu Glu Ala Glu Arg Val Met Ala Glu Glu Arg Val Val Met Leu Pro Pro Arg Ala Arg Ser Leu Lys Ser Phe Val Val Thr Ser Val Val Ala Phe Pro Thr Asp Ser Lys Thr Val Gln Arg Thr Gln Asp Asn Ser Cys Ser Phe Gly Leu His Ala Arg Gly Val Glu Leu Met Arg Phe Thr Thr Pro Gly Phe Pro Asp Ser Pro Tyr Pro Ala His Ala Arg Cys Gln Trp Ala Leu Arg Gly Asp Ala Asp Ser Val Leu Ser Leu Thr Phe Arg Ser Phe Asp Leu Ala Ser Cys Asp Glu Arg Gly Arg His Leu Val Thr Val Tyr Asn Thr Leu Ser Pro Met Glu Pro His Ala Leu Val Gln Leu Cys Gly Thr Tyr Pro Pro Ser Tyr Asn Leu Thr Phe His Ser Ser Gln Asn Val Leu Leu Ile Thr Leu Ile Thr Asn Thr Glu Arg Arg His Pro Gly Phe Glu Ala Thr Phe Phe Gln Leu Pro Arg Met Ser Ser Cys Gly Gly Arg Leu Arg Lys Ala Gln Gly Thr Phe Asn Ser Pro Tyr Tyr Pro Gly His Tyr Pro Pro Asn Ile Asp Cys Thr Trp Asn Ile Glu Val Pro Asn Asn Gln His Val Lys Val Arg Phe Lys Phe Phe Tyr Leu Leu Glu Pro Gly Val Pro Ala Gly Thr Cys Pro Lys Asp Tyr Val Glu Ile Asn Gly Glu Lys Tyr Cys Gly Glu Arg Ser Gln Phe Val Val Thr Ser Asn Ser Asn Lys Ile Thr Val Arg Phe His Ser Asp Gln Ser Tyr Thr Asp Thr Gly Phe Leu Ala Glu Tyr Leu Ser Tyr Asp Ser Ser Asp Pro Cys Pro Gly Gln Phe Thr Cys Arg Thr Gly Arg Cys Ile Arg Lys Glu Leu Arg Cys Asp Gly Trp Ala Asp Cys Thr Asp His Ser Asp Glu Leu Asn Cys Ser Cys Asp Ala Gly His Gln Phe Thr Cys Lys Asn Lys Phe Cys Lys Pro Leu Phe Trp Val Cys Asp Ser Leu Asn Asp Cys Gly Asp Asn Ser Asp Glu Gln Gly Cys Ser Cys Pro Ala Gln Thr Phe Arg Cys Ser Asn Gly Lys Cys Leu Ser Lys Ser Gln Gln Cys Asn Gly Lys Asp Asp Cys Gly Asp Gly Ser Asp Glu Ala Ser Cys Pro Lys Val Asn Val Val Thr Cys Thr Lys His Thr Tyr Arg Cys Leu Asn Gly Leu Cys Leu Ser Lys Gly Asn Pro Glu Cys Asp Gly Lys Glu Asp Cys Ser Asp Gly Ser Asp Glu Lys Asp Cys Asp Cys Gly Leu Arg Ser Phe Thr Arg Gln Ala Arg Val Val Gly Gly Thr Asp Ala Asp Glu Gly Glu Trp Pro Trp Gln Val Ser Leu His Ala Leu Gly Gln Gly His Ile Cys Gly Ala Ser Leu Ile Ser Pro Asn Trp Leu Val Ser Ala Ala His Cys Tyr Ile Asp 

Asp Arg Gly Phe Arg Tyr Ser Asp Pro Thr Gln Trp Thr Ala Phe Leu 665 Gly Leu His Asp Gln Ser Gln Arg Ser Ala Pro Gly Val Gln Glu Arg 685 680 Arg Leu Lys Arg Ile Ile Ser His Pro Phe Phe Asn Asp Phe Thr Phe 700 695 Asp Tyr Asp Ile Ala Leu Leu Glu Leu Glu Lys Pro Ala Glu Tyr Ser 715 710 Ser Met Val Arg Pro Ile Cys Leu Pro Asp Ala Ser His Val Phe Pro 725 730 Ala Gly Lys Ala Ile Trp Val Thr Gly Trp Gly His Thr Gln Tyr Gly
740 745 750 Gly Thr Gly Ala Leu Ile Leu Gln Lys Gly Glu Ile Arg Val Ile Asn 755 760 . 765 Gln Thr Thr Cys Glu Asn Leu Leu Pro Gln Gln Ile Thr Pro Arg Met 775 780 Met Cys Val Gly Phe Leu Ser Gly Gly Val Asp Ser Cys Gln Gly Asp 790 795 Ser Gly Gly Pro Leu Ser Ser Val Glu Ala Asp Gly Arg Ile Phe Gln 810 805 Ala Gly Val Val Ser Trp Gly Asp Gly Cys Ala Gln Arg Asn Lys Pro 825 830 820 Gly Val Tyr Thr Arg Leu Pro Leu Phe Arg Asp Trp Ile Lys Glu Asn 840 835 Thr Gly Val 850 851

<210> 1799 <211> 204 <212> PRT <213> Homo sapiens

<400> 1799 Phe Val Ser Gly Ser Pro Trp Arg Met Asp Gly Ser Thr Glu Arg Leu 5 10 15 Glu Ala Arg Arg Pro Ala Gly Arg Leu Pro Trp Ser Ser Arg Gln Glu 20 25 30 Met Thr Arg Arg Pro Ser Leu Met Ala Gly Arg Gln His Gly Trp Ser 40 35 Ala Gln Gln Ser Ala Thr Val Ala Asn Pro Val Pro Gly Ala Asn Pro 55 60 Asp Leu Leu Pro His Phe Leu Gly Glu Pro Glu Asp Val Tyr Ile Val 70 75 Lys Asn Lys Pro Val Leu Leu Val Cys Lys Ala Val Pro Ala Thr Gln 85 90 Ile Phe Phe Lys Cys Asn Gly Glu Trp Val Arg Gln Val Asp His Val 100 105 110 Ile Glu Arg Ser Thr Asp Gly Ser Ser Gly Leu Pro Thr Met Glu Val 120 125 115 Arg Ile Asn Val Ser Arg Gln Gln Val Glu Lys Val Phe Gly Leu Glu 140 135 Glu Tyr Trp Cys Gln Cys Val Ala Trp Ser Ser Ser Gly Thr Thr Lys 155 150 Ser Gln Lys Ala Tyr Ile Arg Ile Ala Tyr Leu Arg Lys Asn Phe Glu 165 170 175 Gln Glu Pro Leu Ala Lys Glu Val Ser Leu Glu Gln Gly Ile Val Leu 185 Pro Cys Arg Pro Pro Glu Gly Ile Pro Pro Ala Glu 200

<210> 1800 <211> 892 <212> PRT <213> Homo sapiens

<400> 1800 Met Glu Pro Ser Leu Gly Gln Gly Met Asp Leu Thr Cys Pro Phe Gly 10 Val Ser Pro Ala Cys Gly Ala Gln Ala Ser Trp Ser Ile Phe Gly Ala 20 25 Asp Ala Ala Glu Val Pro Gly Thr Arg Gly His Ser Gln Gln Glu Ala Ala Met Pro His Ile Pro Glu Asp Glu Glu Pro Pro Gly Glu Pro Gln 55 Ala Ala Gln Ser Pro Ala Gly Gln Gln Gly Pro Pro Thr Ala Gly Val 70 75 Ser Cys Ser Pro Thr Pro Thr Ile Val Leu Thr Gly Asp Ala Thr Ser 85 90 Pro Glu Gly Glu Thr Asp Lys Asn Leu Ala Asn Arg Val His Ser Pro 100 105 His Lys Arg Leu Ser His Arg His Leu Lys Val Ser Thr Ala Ser Leu 115 120 125 Thr Ser Val Asp Pro Ala Gly His Ile Ile Asp Leu Val Asn Asp Gln 135 140 Leu Pro Asp Ile Ser Ile Ser Glu Glu Asp Lys Lys Asn Leu Ala 150 155 Leu Leu Glu Glu Ala Lys Leu Val Ser Glu Arg Phe Leu Thr Arg Arg 165 170 175 Gly Arg Lys Ser Arg Ser Ser Pro Gly Asp Ser Pro Ser Ala Val Ser 185 180 Pro Asn Leu Ser Pro Ser Ala Ser Pro Thr Ser Ser Arg Ser Asn Ser 200 205 Leu Thr Val Pro Thr Pro Pro Glu Gly Asp Glu Ala Asp Val Ser Ser 215 220 Pro His Pro Gly Glu Pro Asn Val Pro Lys Gly Leu Ala Asp Arg Lys 230 . 235 Gln Asn Asp Gln Arg Lys Val Ser Gln Gly Arg Leu Ala Pro Arg Pro 245 250 Pro Pro Val Glu Lys Ser Lys Glu Ile Ala Ile Glu Gln Lys Glu Asn 265 Phe Asp Pro Leu Gln Tyr Pro Glu Thr Thr Pro Lys Gly Leu Ala Pro 275 280 285 Val Thr Asn Ser Ser Gly Lys Met Ala Leu Asn Ser Pro Gln Pro Gly 290 295 300 Pro Val Glu Ser Glu Leu Gly Lys Gln Leu Leu Lys Thr Gly Trp Glu 310 315 Gly Ser Pro Leu Pro Arg Ser Pro Thr Gln Asp Ala Ala Gly Val Gly 325 330 Pro Pro Ala Ser Gln Gly Arg Gly Pro Ala Gly Glu Pro Met Gly Pro 340 345 Glu Ala Gly Ser Lys Ala Glu Leu Pro Pro Thr Val Ser Arg Pro Pro 360 Leu Leu Arg Gly Leu Ser Trp Asp Ser Gly Pro Glu Glu Pro Gly Pro 375 380 Arg Leu Gln Lys Val Leu Ala Lys Leu Pro Leu Ala Glu Glu Lys 395 390 Arg Phe Ala Gly Lys Ala Gly Gly Lys Leu Ala Lys Ala Pro Gly Leu 410 Lys Asp Phe Gln Ile Gln Val Gln Pro Val Arg Met Gln Lys Leu Thr 420 430 425 Lys Leu Arg Glu Glu His Ile Leu Met Arg Asn Gln Asn Leu Val Gly 440

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Leu Lys Leu Pro Asp Leu Ser Glu Ala Ala Glu Gln Glu Lys Gly Leu
                  455
                                      460
  450
Pro Ser Glu Leu Ser Pro Ala Ile Glu Glu Glu Glu Ser Lys Ser Gly
               470
                                  475
Leu Asp Val Met Pro Asn Ile Ser Asp Val Leu Leu Arg Lys Leu Arg
                              490
             485
Val His Arg Ser Leu Pro Gly Ser Ala Pro Pro Leu Thr Glu Lys Glu
                         505
          500
Val Glu Asn Val Phe Val Gln Leu Ser Ser Ala Phe Arg Asn Asp Ser
                                525
      515
                       520
Tyr Thr Leu Glu Ser Arg Ile Asn Gln Ala Glu Arg Glu Arg Asn Leu
                                     540
        535
  530
Thr Glu Glu Asn Thr Glu Lys Glu Leu Glu Asn Phe Lys Ala Ser Ile
                550
                          555
Thr Ser Ser Ala Ser Leu Trp His His Cys Glu His Arg Glu Thr Tyr
                         570
Gln Lys Leu Leu Glu Asp Ile Ala Val Leu His Arg Leu Ala Ala Arg
                           585
        580
Leu Ser Ser Arg Ala Glu Val Val Gly Ala Val Arg Gln Glu Lys Arg
                                         605
              600
   595
Met Ser Lys Ala Thr Glu Val Met Met Gln Tyr Val Glu Asn Leu Lys
                                      620
                    615
Arg Thr Tyr Glu Lys Asp His Ala Glu Leu Met Glu Phe Lys Lys Leu
                                  635
                 630
Ala Asn Gln Asn Ser Ser Arg Ser Cys Gly Pro Ser Glu Asp Gly Val
                                                655
                              650
              645
Leu Arg Thr Ala Arg Ser Met Ser Leu Thr Leu Gly Lys Asn Met Pro
                           665
                                            670
        660
Arg Arg Arg Val Ser Val Ala Val Val Pro Lys Phe Asn Ala Leu Asn
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               680
      675
Leu Pro Gly Gln Thr Pro Ser Ser Ser Ser Ile Pro Ser Leu Pro Ala
            695
                                    700
Leu Ser Glu Ser Pro Asn Gly Lys Gly Ser Leu Pro Val Thr Ser Ala
                                715
                 710
Leu Pro Ala Leu Leu Glu Asn Gly Lys Thr Asn Gly Asp Pro Asp Cys
                               730
              725
Glu Ala Ser Ala Pro Ala Leu Thr Leu Ser Cys Leu Glu Glu Leu Ser
                                     750
                   745
  · 740
Gln Glu Thr Lys Ala Arg Met Glu Glu Glu Ala Tyr Ser Lys Gly Phe
                                         765
                        760
Gln Glu Gly Leu Lys Lys Thr Lys Glu Leu Gln Asp Leu Lys Glu Glu
                                      780
                     775
Glu Glu Glu Gln Lys Ser Glu Ser Pro Glu Glu Pro Glu Glu Val Glu
                                  795
                 790
Glu Thr Glu Glu Glu Lys Asp Pro Arg Ser Ser Lys Leu Glu Glu
              B05
                               810
Leu Val His Phe Leu Gln Val Met Tyr Pro Lys Leu Cys Gln His Trp
                                    830
                            825
          820
Gln Val Ile Trp Met Met Ala Ala Val Met Leu Val Leu Thr Val Val
                        840
       835
Leu Gly Leu Tyr Asn Ser Tyr Asn Ser Cys Ala Glu Gln Ala Asp Gly
                                      860
            855
Pro Leu Gly Arg Ser Thr Cys Ser Ala Ala Gln Lys Asp Ser Trp Trp
                         875
                 870
Ser Ser Gly Leu Gln His Glu Gln Pro Thr Glu Gln
                                890
              885
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<210> 1801 <211> 101 <212> PRT <213> Homo sapiens

<400> 1801 Gln Leu Ile Gln His Gln Thr Val His Thr Gly Arg Lys Leu Tyr Glu 10 Cys Lys Glu Cys Gly Lys Ala Phe Asn Gln Gly Ser Thr Leu Ile Arg 20 25 His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Val Cys Gly Lys Ala Phe Arg Val Ser Ser Gln Leu Lys Gln His Gln Arg Ile 55 His Thr Gly Glu Arg Pro Tyr Gln Cys Lys Glu Leu Lys Gly Arg Gly 70 75 Ala Glu Met Leu Ala Val Leu Ala Val Lys Glu Gln Asn Arg Thr Pro 90 Val Asn Tyr Gly Lys 100 101

<210> 1802

<211> 175

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (175)

<223> Xaa = any amino acid or nothing

<400> 1802 Met Thr Cys Leu His Ser Ala Lys Ala Phe His Tyr Xaa Ser Ser Cys 10 Ser Phe Ser Cys Glu Glu Gly Phe Ala Leu Ile Gly Pro Glu Val Val Gln Cys Thr Ala Leu Gly Val Trp Thr Ala Pro Ala Pro Val Cys Ile 40 Ala Val Gln Cys Gln His Leu Glu Ala Leu Asn Glu Gly Thr Met Gly 55 Kaa Asp Tyr Pro Phe Thr Ala Phe Ala Tyr Gly Ser Ser Cys Lys Tyr 70 75 Glu Cys His Thr Val Tyr Arg Val Arg Gly Leu Asp Met Leu His Ser Arg Gly Cys Tyr Leu Trp Asn Gly His Phe Thr Thr Xaa Glu Ala Ile 100 105 110 Ser Cys Glu Pro Leu Glu Arg Pro Cys His Xaa Ser Val Xaa Cys Ser 115 125 120 Phe Ser Cys Glu Glu Gly Phe Ala Leu Ile Gly Pro Glu Val Val Gln 135 140 Cys Thr Ala Leu Gly Val Trp Thr Ala Pro Ala Pro Val Cys Ile Ala 150 155 Val Gln Cys Gln His Leu Glu Ala Leu Asn Glu Gly Thr Met Gly 165 175

<210> 1803 <211> 175

<212> PRT

<213> Homo sapiens

<400> 1803

Ile Gln Ala Lys Gly Leu Gly Ile Trp His Val Pro Asn Lys Ser Pro 1 5 10 15

Met Gln His Trp Arg Lys Gly Ser Leu Leu Arg Tyr Arg Thr Asp Thr 25 20 Gly Phe Leu Gln Thr Leu Gly His Asn Leu Leu Gly Ile Tyr Gln Lys 40 Tyr Pro Val Lys Tyr Gly Glu Gly Lys Cys Trp Thr Asp Asn Gly Pro 55 60 Val Ile Pro Val Val Tyr Asp Phe Gly Asp Ala Gln Lys Thr Ala Ser 70 Tyr Tyr Ser Pro Tyr Gly Gln Arg Glu Phe Thr Ala Gly Phe Val Gln 85 90 Phe Arg Val Phe Asn Asn Glu Arg Ala Ala Asn Ala Leu Cys Ala Gly 100 105 110 Met Arg Val Thr Gly Cys Asn Thr Glu His His Cys Ile Gly Gly 120 125 Gly Tyr Phe Pro Glu Ala Ser Pro Gln Gln Cys Gly Asp Phe Ser Gly 130 135 140 Phe Asp Trp Ser Gly Tyr Gly Thr His Val Gly Tyr Ser Ser Arg 150 155 160 Glu Ile Thr Glu Ala Ala Val Leu Leu Phe Tyr Arg 170 172 165

<210> 1804 <211> 120 <212> PRT <213> Homo sapiens

<400> 1804 Thr Gln Val His Pro Ala Met Leu Gly Leu Asp Glu Leu Gly Arg Ser 10 Gly Cys Gly His Cys Thr Gln Ala Asp Leu Arg Phe Gly Asp Ala Ala 25 20 Gly Arg Asp Pro Gly Gln Asp Asn Asp Arg Asn Thr Ala Glu Pro Ala . 35 40 Phe Pro Pro Pro Pro Arg Val Met Ala Ala Ala Ala Leu Arg Ala 60 55 Pro Ala Gln Ser Ser Val Thr Phe Glu Asp Val Ala Val Asn Phe Ser 65 70 75 80 Leu Glu Glu Trp Ser Leu Leu Asn Glu Ala Gln Gly Cys Leu Tyr His 90 Asp Val Met Leu Glu Thr Leu Thr Leu Ile Ser Ser Leu Gly Lys Val 100 105 Leu Ile Leu Asn Cys Asp Leu Ser

<210> 1805 <211> 137 <212> PRT <213> Homo sapiens

115

Gln Pro Pro Ser Pro Arg Gly Pro Arg Thr Val Arg Ala Gly Val Pro 70 75 Gly Ala His Pro Gln Asp Thr Pro Cys Pro Glu Phe Val Arg Pro Arg 85 90 Lys Val Pro Leu Val Gly Glu Ala Pro Gly Leu Pro Pro Glu Glu Arg 100 105 110 Ser Arg Gly Trp Arg Arg Asp Thr Pro Gly Leu Gln Glu Ser Arg Val 115 . 120 125 Arg Ala Pro Ser Tyr Asp Asp Ile Thr 135

<210> 1806
<211> 132
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(130)
<223> Xaa = any amino acid or nothing

<400> 1806 Gln Ile Val Ser Phe Asn Ser Tyr Leu Thr Leu Tyr Thr Lys Asn Asn 1 5 10 Leu Lys Ser Met Lys Asp Leu Asn Val Asn Thr Glu Met Ile Lys Leu 25 Leu Glu Leu Lys Asn Ile His Asn Leu Gly Xaa Ala Lys Phe Phe Leu 35 40 Asn Xaa Ile Gln Lys Ala Leu Ile Lys Arg Lys Ile Leu Ile His Trp 55 60 Pro Leu Ile Lys Ile Lys Ser Phe Cys Ser Leu Ser Asp Thr Ile Lys .65 70 75 80 Lys Met Lys Arg Gln Thr Ile Val Trp Glu Gln Thr Phe Ile Ile His 90 Ile Ser Val Lys Glu Leu Val Ser Arg Ile Tyr Glu Ala Phe Leu Gln 105 Phe Asn Lys Thr Val Asn Arg Pro Val Phe Asp Ile Lys Lys Glu Gln 120 Lys Phe

<210> 1807 <211> 651 <212> PRT <213> Homo sapiens

130

Thr Arg Arg Asn Thr Gln Glu Trp Thr Gln Glu Trp Lys Glu Cys Pro 105 Asp Tyr Val Ser Ala Gly Glu Asn Ser Cys Tyr Phe Asn Ser Ser Phe 125 120 Thr Ser Ile Trp Ile Pro Tyr Cys Ile Lys Leu Thr Ser Asn Gly Gly 140 135 Thr Val Asp Glu Lys Cys Phe Ser Val Asp Glu Ile Val Gln Pro Asp 155 150 Pro Pro Ile Ala Leu Asn Trp Thr Leu Leu Asn Val Ser Leu Thr Gly 170 175 Ile His Ala Asp Ile Gln Val Arg Trp Glu Ala Pro Arg Asn Ala Asp 180 185 190 Ile Gln Lys Gly Trp Met Val Leu Glu Tyr Glu Leu Gln Tyr Lys Glu 195 200 205 Val Asn Glu Thr Lys Trp Lys Met Met Asp Pro Ile Leu Thr Thr Ser 220 215 Val Pro Val Tyr Ser Leu Lys Val Asp Lys Glu Tyr Glu Val Arg Val 230 235 Arg Ser Lys Gln Arg Asn Ser Gly Asn Tyr Gly Glu Phe Ser Glu Val 245 250 Leu Tyr Val Thr Leu Pro Gln Met Ser Gln Phe Thr Cys Glu Glu Asp 260 265 Phe Tyr Phe Pro Trp Leu Leu Ile Ile Ile Phe Gly Ile Phe Gly Leu 275 280 Thr Val Met Leu Phe Val Phe Leu Phe Ser Lys Gln Gln Arg Ile Lys 300 295 Met Leu Ile Leu Pro Pro Val Pro Val Pro Lys Ile Lys Gly Ile Asp 310 315 Pro Asp Leu Leu Lys Glu Gly Lys Leu Glu Glu Val Asn Thr Ile Leu 325 330 Ala Ile His Asp Ser Tyr Lys Pro Glu Phe His Ser Asp Asp Ser Trp 350 340 345 Val Glu Phe Ile Glu Leu Asp Ile Asp Glu Pro Asp Glu Lys Thr Glu 355 360 365 Glu Ser Asp Thr Asp Arg Leu Leu Ser Ser Asp His Glu Lys Leu His 375 380 Ile Asn Leu Gly Val Lys Asp Gly Asp Ser Gly Arg Thr Ser Cys Cys 395 390 Glu Pro Asp Ile Leu Glu Thr Asp Phe Asn Ala His Asp Ile His Glu 410 405 Gly Thr Ser Glu Val Ala Gln Pro Gln Arg Leu Lys Gly Glu Ala Asp 425 430 420 Leu Leu Cys Leu Asp Gln Lys Asn Gln Asn Asn Ser Pro Tyr His Asp 435 440 Ala Cys Pro Ala Thr Gln Gln Pro Ser Val Ile Gln Ala Glu Lys Asn 455 460 Lys Pro Gln Pro Leu Pro Thr Glu Gly Ala Glu Ser Thr His Gln Ala 470 475 Ala His Ile Gln Leu Ser Asn Pro Ser Ser Leu Ser Asn Ile Asp Phe 490 485 Tyr Ala Gln Val Ser Asp Ile Thr Pro Ala Gly Ser Val Val Leu Ser 500 505 Pro Gly Gln Lys Asn Lys Ala Gly Met Ser Gln Cys Asp Met His Pro 515 520 525 Glu Met Val Ser Leu Cys Gln Glu Asn Phe Leu Met Asp Asn Ala Tyr 535 540 Phe Cys Glu Ala Asp Ala Lys Lys Cys Ile Pro Val Ala Pro His Ile 550 555 Lys Val Glu Ser His Ile Gln Pro Ser Leu Asn Gln Glu Asp Ile Tyr 570 565 Ile Thr Thr Glu Ser Leu Thr Thr Ala Ala Gly Ser Pro Gly Thr Gly 580 585 590 Glu His Val Pro Gly Ser Glu Met Pro Val Pro Asp Tyr Thr Ser Ile 605 600

His Ile Val Gln Ser Pro Gln Gly Leu Ile Leu Asn Ala Thr Ala Leu 610 615 620

Pro Leu Pro Asp Lys Glu Phe Leu Ser Ser Cys Gly Tyr Val Ser Thr 625 630 640

Asp Gln Leu Asn Lys Ile Met Pro 648

<210> 1808 <211> 103 <212> PRT <213> Homo sapiens

<400> 1808 Thr Arg Ala Pro Ala Ser Gly Arg Ser Gly Ala Gly Leu Ala Leu Ser 10 Ala Asn Ala Pro Asp Ser Gly Gly His Pro Gly Ala Thr Glu Gly Pro Ala Gly Ser Leu Ala His Ala Ser Gly Ser Ala Arg Gly Thr Trp Arg 35 40 Val Arg Gly Arg Gly Ser His Gly Trp Glu Arg Thr Val Gly Ala Gly 55 60 50 Gly Cys Ala Asn Pro Val Pro Ala Leu His Ser Cys Ala Ser Ala Pro 70 75 Arg Gly Thr Gly Arg Val Ser Ala Leu Gly Pro Lys Thr Gly Ser Ser 85 Pro Leu Ser Ser Pro Lys Gly 100 103

<210> 1809 <211> 258 <212> PRT <213> Homo sapiens

<400> 1809 Leu Gly Lys Tyr Asn Thr Ser Met Ala Leu Phe Asp Phe Val Leu His Asn Ser Thr Gly Glu Ile Arg Tyr Ile Thr Glu Asp Asp Val Ile Gln 20 25 Ser Gln Asn Ala Leu Gly Lys Tyr Asn Thr Ser Met Ala Leu Phe Glu 45 40 Ser Asn Ser Phe Glu Lys Thr Ile Leu Glu Ser Pro Tyr Tyr Val Asp 55 60 Leu Asn Gln Thr Leu Phe Val Gln Val Ser Leu His Thr Ser Asp Pro 70 75 Asn Leu Val Val Phe Leu Asp Thr Cys Arg Ala Ser Pro Thr Ser Asp 85 90 95 Phe Ala Ser Pro Thr Tyr Asp Leu Ile Lys Ser Gly Cys Ser Arg Asp 100 105 Glu Thr Cys Lys Val Tyr Pro Leu Phe Gly His Tyr Gly Arg Phe Gln
115 120 125 115 120 125 Phe Asn Ala Phe Lys Phe Leu Arg Ser Met Ser Ser Val Tyr Leu Gln 130 135 140 Cys Lys Val Leu Ile Cys Asp Ser Ser Asp His Gln Ser Arg Cys Asn 150 155 Gln Gly Cys Val Ser Arg Ser Lys Arg Asp Ile Ser Ser Tyr Lys Trp 170 165 175 Lys Thr Asp Ser Ile Ile Gly Pro Ile Arg Leu Lys Arg Asp Arg Ser 185 180

<210> 1810 <211> 100 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(97) <223> Xaa = any amino acid or nothing

<400> 1810 Leu Gly Ile Leu Met Ser Pro Gln Val Glu Ala Gly Glu Ile Xaa Ala 5 10 1. Leu Leu Thr Pro Pro Pro Gly Cys Met Gln Phe Ser Pro Leu Thr Leu 25 20 Pro Lys Xaa Trp Val Ser Pro Gly Leu Thr Pro Pro Pro Pro Glu Val 40 35 Pro Ser Val Phe Leu Val Glu Pro Gly Leu Pro His Ala Gly Gln Ala 55 60 50 Gly Leu Asp Leu Leu Thr Ser Gly Asp Pro Pro Ala Ser Thr Ser Gln 75 70 Ser Ala Arg Thr Thr Asp Val Ser His Arg Ala Gln Pro Leu Ala Ile 85 Ser 97

<210> 1811
<211> 125
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(124)
<223> Xaa = any amino acid or nothing

<400> 1811 Ile Gly Val Leu Ala Phe Glu Thr Gly Ser Cys Ser Val Thr Arg Leu 10 1 5 Tyr Cys Ile Gly Ile Ile Met Pro His Cys Ser Leu Asp Leu Ala Gly 25 30 20 Ser Thr Ser Ala Phe Arg Ile Ala Gly Thr Thr Ser Val His His His 35 40 Pro Gln Leu Thr Phe Phe Phe Phe Trp Ile Glu Thr Gly Ser His Cys 55 Val Val Gln Thr Gly Leu Xaa Leu Leu Ala Leu Ser Asn Pro Pro Ala 75 70 Leu Ala Ser Gln Ile Ala Gly Ile Ser Gly Met Ser His Arg Ala Trp 85 90 Pro Gly Leu Val Leu Tyr Ser Leu Glu Phe Ser Leu Leu Cys Ala Ser 105

Gln Ser Leu Ile Met Leu Phe Thr Cys Tyr Asn Glu 115 120 124

<210> 1812 <211> 98 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(95) <223> Xaa = any amino acid or nothing

<400> 1812 Val Lys Pro Val Asn Gly Glu Ser Lys Arg Asp Xaa Gly Ala Asp Thr 1 5 10 Gln Thr Cys Glu Gly Glu Ala Asp Glu Gln Leu Gln Thr Asn Cys Tyr 25 Tyr Asp Ser Thr Lys Ser Phe Phe Tyr Ile Ser Cys Gly Xaa Lys Arg 40 Lys Pro Thr Trp Ala Glu Asn Arg Arg Leu Asn Ala Lys Met Phe Gly 60 55 Ile Pro Leu His Ser Asn Ser Asp Pro Trp Gly Tyr Glu Glu Arg Glu 75 65 70 Val Ile Gly Phe His Arg Ser Arg Val Ser Arg Gly His Gly Ser

<210> 1813
<211> 169
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(169)
<223> Xaa = any amino acid or nothing

<400> 1813 Gln Arg Asn Pro Phe Ser Ala Gly His Pro Gln Arg Pro Pro Thr Ser 10 Gly Ser Gln Ser Glu Leu Leu Ala Gln Pro Arg Leu Arg Pro Gly Arg 20 25 30 Lys Ser Ser Phe Ser Arg Asp Gln Asp Val Trp Xaa Ser Gln Ala Val 40 45 Pro Lys Arg Gln Xaa Gln Arg Asn Pro Phe Ser Ala Gly His Pro Gln . 55 Arg Pro Pro Thr Ser Gly Ser Gln Ser Glu Leu Leu Ala Gln Pro Arg 70 75 Leu Arg Pro Gly Arg Lys Ser Ser Phe Ser Arg Asp Gln Asp Val Trp 85 90 Pro Gly Gln Lys Pro Arg Pro Ser Gln Gln Gln His Gln Met Cys Ala 105 Ser Pro Thr Leu Gly Gln Arg Ser Pro Phe Ala Leu Glu Pro Val Pro 125 120 115 Ala Tyr His Gly Gly Arg Asp Pro Phe Ala Ser Ala Arg Pro Ser Pro 140 130 135 Val Gly Ile Pro Lys Pro Arg Ala Ala Pro Ala Gly Gly Gly Trp Arg 150 Arg Ile Arg Pro Lys Ser Ser Thr Lys 165

<210> 1814 <211> 651 <212> PRT

<213> Homo sapiens <221> misc feature <222> (1)...(641) <223> Xaa = any amino acid or nothing <400> 1814 Pro Val Ile Gln Arg Cys Ser Gln Pro Tyr Gly Phe Ser Leu Leu Ile 10 Ser Phe Phe Leu Lys Cys Val Ser Glu Thr Ser Gln Gln Pro Pro Ser 25 Arg Lys Val Phe Gln Leu Leu Pro Ser Phe Pro Thr Leu Thr Arg Ser 35 40 45 Lys Ser His Glu Ser Gln Leu Gly Asn Arg Ile Asp Asp Val Ser Ser 50 60 Met Arg Phe Asp Leu Ser His Gly Ser Pro Gln Met Val Arg Arg Asp 70 Ile Gly Leu Ser Val Thr His Arg Phe Ser Thr Lys Ser Trp Leu Ser 90 85 Gln Val Cys His Val Cys Gln Lys Ser Met Ile Phe Gly Val Lys Cys 105 110 100 Lys His Cys Arg Leu Lys Cys His Asn Lys Cys Thr Lys Glu Ala Pro 115 120 125 Ala Cys Arg Ile Ser Phe Leu Pro Leu Thr Arg Leu Arg Arg Thr Glu 130 135 140 Ser Val Pro Ser Asp Ile Asn Asn Pro Val Asp Arg Ala Ala Glu Pro 145 150 155 His Phe Gly Thr Leu Pro Lys Ala Leu Thr Lys Lys Glu His Pro Pro 165 170 Ala Met Asn His Leu Asp Ser Ser Ser Asn Pro Ser Ser Thr Thr Phe 180 185 190 Ser Thr Pro Ser Ser Pro Ala Pro Phe Pro Thr Ser Ser Asn Pro Ser 200 205 Ser Ala Thr Thr Pro Pro Asn Pro Ser Pro Gly Gln Arg Asp Ser Arg 215 220 Phe Asn Phe Pro Ser Cys Ala Tyr Phe Ile His His Arg Gln Gln Phe 225 230 235 Ile Phe Pro Asp Ile Ser Ala Phe Ala His Ala Ala Pro Leu Pro Glu 245 250 255 Ala Ala Asp Gly Thr Arg Leu Asp Asp Gln Pro Lys Ala Asp Val Leu 260 265 270 265 Glu Ala His Glu Ala Glu Ala Glu Glu Pro Glu Ala Gly Lys Ser Glu 275 280 285 Ala Glu Asp Asp Glu Asp Glu Val Asp Asp Leu Pro Ser Ser Arg Arg 290 295 300 Pro Trp Arg Gly Pro Ile Ser Arg Lys Ala Ser Gln Thr Ser Val Tyr 315 310 Leu Gln Glu Trp Asp Ile Pro Phe Glu Gln Val Glu Leu Gly Glu Pro 325 335 330 Ile Gly Gln Gly Arg Trp Gly Arg Val His Arg Gly Arg Trp His Gly 340 345 350 Glu Val Ala Ile Arg Leu Leu Glu Met Asp Gly His Asn Gln Asp His 355 360 365 Leu Lys Leu Phe Lys Lys Glu Val Met Asn Tyr Arg Gln Thr Arg His

395

Glu Asn Val Val Leu Phe Met Gly Ala Cys Met Asn Pro Pro His Leu

380

370 375

390

Ala Ile Ile Thr Ser Phe Cys Lys Gly Arg Thr Leu His Ser Phe Val 405 410 Arg Asp Pro Lys Thr Ser Leu Asp Ile Asn Lys Thr Arg Gln Ile Ala 420 425 Gln Glu Ile Ile Lys Gly Met Gly Tyr Leu His Ala Lys Gly Ile Val 440 His Lys Asp Leu Lys Ser Arg Asn Val Phe Tyr Asp Asn Gly Lys Val 460 450 455 Val Ile Thr Asp Phe Gly Leu Phe Gly Ile Ser Gly Val Val Pro Glu 470 475 Gly Arg Arg Glu Asn Gln Leu Lys Leu Ser His Asp Trp Leu Cys Tyr 485 490 495 Leu Ala Pro Glu Ile Val Arg Glu Met Thr Pro Gly Lys Asp Glu Asp 510 500 505 Gln Leu Pro Phe Ser Lys Ala Ala Asp Val Tyr Ala Phe Gly Thr Val 525 520 Trp Tyr Glu Leu Gln Ala Arg Asp Trp Pro Leu Lys Asn Gln Ala Ala 535 540 Glu Ala Ser Ile Trp Gln Ile Gly Ser Gly Glu Gly Met Lys Arg Val 550 555 Leu Thr Ser Val Ser Leu Gly Lys Glu Val Ser Glu Asn Leu Ser Ala 565 570 Cys Trp Ala Phe Asp Leu Gln Glu Arg Pro Ser Phe Ser Leu Leu Met 590 580 585 Asp Met Leu Glu Lys Leu Pro Lys Leu Asn Arg Arg Leu Ser His Pro 595 600 605 Gly His Phe Xaa Lys Ser Ala Asp Ile Asn Ser Ser Lys Val Val Pro-615 620 Arg Phe Glu Arg Phe Gly Leu Gly Val Leu Glu Ser Ser Asn Pro Lys 625 630 Met 641

<210> 1815 <211> 266

<212> PRT

<213> Homo sapiens

<221> misc feature

<222> (1) ... (265)

<223> Xaa = any amino acid or nothing

<400> 1815

Ile Pro Ser Pro Ala Trp Trp Asn Ser Thr Trp Ala Asp Thr Phe Ser 5 10 Leu Leu Leu Ala Leu Ala Val Ala Leu Tyr Leu Gly Tyr Tyr Trp Ala 20 25 Cys Val Leu Gln Thr His Arg Ala Phe Cys Ala Ser Asn Thr Glu Asp 40 Leu Glu Thr Val Val Asn His Ile Lys His Arg Tyr Pro Gln Ala Pro 55 Leu Leu Ala Val Gly Ile Ser Phe Gly Gly Ile Leu Val Leu Asn His 70 75 Leu Ala Gln Ala Arg Gln Ala Ala Gly Leu Val Ala Ala Leu Thr Leu
85 90 95 Ser Ala Cys Trp Asp Ser Phe Glu Thr Thr Arg Ser Leu Glu Thr Pro 100 105 Leu Asn Ser Leu Leu Phe Asn Gln Pro Leu Thr Ala Gly Leu Cys Gln 115 120 125 Leu Val Glu Arg Leu Ser Tyr Glu Xaa Asp Leu Gln Ala Arg Thr Ile 135

Arg Gln Phe Asp Glu Arg Tyr Thr Ser Val Ala Phe Gly Tyr Gln Asp 150 155 145 Cys Val Thr Tyr Tyr Lys Ala Ala Ser Pro Arg Thr Lys Ile Asp Ala 170 175 165 Ile Arg Ile Pro Val Leu Tyr Leu Ser Ala Ala Asp Asp Pro Phe Ser 190 185 180 Thr Val Cys Ala Leu Pro Lys Gln Ala Ala Gln His Ser Pro Tyr Val 205 200 195 . Ala Leu Leu Ile Thr Ala Arg Gly Gly His Ile Gly Phe Leu Glu Gly 210 215 220 Leu Leu Pro Trp Gln His Trp Tyr Met Ser Arg Leu Leu His Gln Tyr 225 230 235 Ala Lys Ala Ile Phe Gln Asp Pro Glu Gly Leu Pro Asp Leu Arg Ala 245 250 Leu Leu Pro Ser Glu Asp Arg Asn Ser

<210> 1816
<211> 104
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(101)
<223> Xaa = any amino acid or nothing

<400> 1816 Ser Ser Gln Tyr Ile Val Gln Ser Lys Thr Lys Ile Phe Leu Xaa Ala 10 5 Ala Arg Glu Lys Gln Arg His Thr Cys Arg Arg Phe Ser Ile Arg Leu 30 25 Ser Ala Asn Ile Ser Ser Gln Thr Gly Glu Ala Arg Gly Gln Trp Pro 35 40 Ser Val Phe Lys Val Leu Lys Glu Lys Lys Leu Ser Thr Lys Lys Ser 60 55 50 Phe Gly Gln Lys Xaa Gly Arg Arg Lys Thr Phe Pro Asp Lys Gln Lys 70 75 Leu Arg Glu Phe Asp Thr Thr Arg Pro Thr Ile Gln Glu Met Leu Thr 90 85 Gly Val Leu Gln Gly 100 101

<210> 1817
<211> 543
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(542)
<223> Kaa = any amino acid or nothing

Ser Ser Gly Ser Tyr Leu Asp Ser Glu Gly Leu Arg His Gln Asp Asp Phe Asp Val Ser Leu Leu Val Cys His Cys Ala Ala Pro Phe Glu Glu Gln Gly Glu Ala Glu Arg His Val Leu Arg Leu Gln Phe Phe Val Val Leu Thr Ser Gln Arg Glu Leu Phe Pro Arg Leu Thr Ala Asp Met Arg 100 105 Arg Phe Arg Lys Pro Pro Arg Leu Pro Pro Glu Pro Glu Ala Pro Gly Ser Ser Ala Gly Ser Pro Gly Glu Ala Ser Gly Leu Ile Leu Ala Pro Gly Pro Ala Pro Leu Phe Pro Pro Leu Ala Ala Glu Val Gly Met Ala Arg Ala Arg Leu Ala Gln Leu Val Arg Leu Ala Gly Gly His Cys Arg Arg Asp Thr Leu Trp Lys Arg Leu Phe Leu Leu Glu Pro Pro Gly Pro Asp Arg Leu Arg Leu Gly Gly Arg Leu Ala Leu Ala Glu Leu Glu Glu Leu Leu Glu Ala Val His Ala Lys Ser Ile Gly Asp Ile Asp Pro Gln Leu Asp Cys Phe Leu Ser Met Thr Val Ser Trp Tyr Gln Ser Leu Ile Lys Val Leu Leu Ser Arg Phe Pro Gln Ser Cys Arg His Phe Gln Ser Pro Asp Leu Gly Thr Gln Tyr Leu Val Val Leu Asn Gln Lys Phe Thr Asp Cys Phe Val Leu Val Phe Leu Asp Ser His Leu Gly Lys Thr Ser Leu Thr Val Val Phe Arg Glu Pro Phe Pro Val Gln Pro Gln Asp Ser Glu Ser Pro Pro Ala Gln Leu Val Ser Thr Tyr His His Leu Glu Ser 310 315 320 Val Ile Asn Thr Ala Cys Phe Thr Leu Trp Thr Arg Leu Leu Xaa Gly Ser Gly Leu Asp His Xaa Met Ser Leu Phe Leu Glu Ser Trp Ala Tyr Gln Ile Ala Cys Gln Arg Gln Asp Xaa Pro Ala Leu Leu Gly Pro Arg Ala Ser Gln Thr Leu Ser Asp Thr Lys Gly Phe Val Thr Met Ser Xaa Gly Ser Ala Ala Pro Ala Trp Gln Glu Pro Pro Ser Pro Asn Thr ~390 His Ser His Xaa Pro Ile Gln Asp Ser Arg Glu Ser Gly Gln Pro Arg Gly Pro Leu Gly Pro Phe Trp Gly Thr Pro Phe Gly Pro Pro Gly Arg Val Ser Gly Val His Thr Gly Trp Gln Thr Pro Pro Arg Ala Pro Leu Pro Glu Ser Cys Pro Leu Pro Leu Thr Thr Val Ser His Leu Cys Pro Leu Ser Leu Arg Val Phe Thr Ser His Leu Asp Ile Thr Ala Gly His Ser His Arg Asp Asp Thr Trp Val Pro Ile Pro Ala Leu Pro Leu Lys 490 . His Leu Arg Pro Pro Ser Ser Pro Phe Ala Leu Gly Pro Trp Val Ser His Pro Leu Met Arg Trp Val Gln Lys Leu Ser His Leu His Ser Asn Pro Gly Thr Gly Phe Ser Met Gly Gly Lys Gln Gln Arg Asn

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<210> 1818
<211> 155
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (152)
<223> Xaa = any amino acid or nothing
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<400> 1818 Gln Thr Cys Arg Lys Asp Lys Arg Ala Ile Tyr Pro His Phe Gln Asn 10 Glu Xaa Met Asn Glu Ile Lys Ala Ile Xaa Ser Gly Thr Gly Gly Ile 20 25 Gln Cys Phe His Ser Gln Asn Asp Ser Ala Phe Phe Phe Leu Phe 40 35 Leu Leu Glu Thr Glu Phe Cys Ser Ala Ala Thr Val Gln Trp His Asp 55 Phe Leu Ser Met Gln Pro Pro Pro Pro Gly Phe Lys Gln Phe Thr Cys 70 75 Leu Ser Leu Leu Ser Ser Trp Asn Tyr Arg Arg Pro Pro Pro Phe Pro 90 Gly Asn Phe Xaa Phe Leu Val Lys Thr Gly Phe Pro His Val Gly Gln 105 110 100 Thr Gly Phe Glu Leu Leu Thr Ser Ser Asp Leu Ala Pro Leu Ala Ser 125 120 115 Gln Asn Gly Gly Ile Thr Gly Met Ser Pro Cys Ala Trp Pro Phe Phe 135 Phe Phe Phe Phe Gly Leu Cys 150 152 145

<210> 1819
<211> 1482
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(1475)
<223> Xaa = any amino acid or nothing

<400> 1819 Met Ala Tyr Ser Trp Gln Thr Asp Pro Asn Pro Asn Glu Ser His Glu Lys Gln Tyr Glu His Gln Glu Phe Leu Phe Val Asn Gln Pro His Ser 25 20 Ser Ser Gln Val Ser Leu Gly Phe Asp Gln Ile Val Asp Glu Ile Ser 40 35 Gly Lys Ile Pro His Tyr Glu Ser Glu Ile Asp Glu Asn Thr Phe Phe 60 55 Val Pro Thr Ala Pro Lys Trp Asp Ser Thr Gly His Ser Leu Asn Glu 70 Ala His Gln Ile Ser Leu Asn Glu Phe Thr Ser Lys Ser Arg Glu Leu 90 85 Ser Trp His Gln Val Ser Lys Ala Pro Ala Ile Gly Phe Ser Pro Ser 105 Val Leu Pro Lys Pro Gln Asn Thr Asn Lys Glu Cys Ser Trp Gly Ser 120 125 115 Pro Ile Gly Lys His His Gly Ala Asp Asp Ser Arg Phe Ser Ile Leu 140 130

Ala Pro Ser Phe Thr Ser Leu Asp Lys Ile Asn Leu Glu Lys Glu Leu Glu Asn Glu Asn His Asn Tyr His Ile Gly Phe Glu Ser Ser Ile Pro Pro Thr Asn Ser Ser Phe Ser Ser Asp Phe Met Pro Lys Glu Glu Asn Lys Arg Ser Gly His Val Asn Ile Val Glu Pro Ser Leu Met Leu Leu Lys Gly Ser Leu Gln Pro Gly Met Trp Glu Ser Thr Trp Gln Lys Asn Ile Glu Ser Ile Gly Cys Ser Ile Gln Leu Val Glu Val Pro Gln Ser Ser Asn Thr Ser Leu Ala Ser Phe Cys Asn Lys Val Lys Lys Ile Arg Glu Arg Tyr His Ala Ala Asp Val Asn Phe Asn Ser Gly Lys Ile Trp Ser Thr Thr Ala Phe Pro Tyr Gln Leu Phe Ser Lys Thr Lys Phe Asn Ile His Ile Phe Ile Asp Asn Ser Thr Gln Pro Leu His Phe Met Pro Cys Ala Asn Tyr Leu Val Lys Asp Leu Ile Ala Glu Ile Leu His Phe Cys Thr Asn Asp Gln Leu Leu Pro Lys Asp His Ile Leu Ser Val 325 330 Trp Gly Ser Glu Glu Phe Leu Gln Asn Asp His Cys Leu Gly Ser His Lys Met Phe Gln Lys Asp Lys Ser Val Ile Gln Leu His Leu Gln Lys Ser Arg Glu Ala Pro Gly Lys Leu Ser Arg Lys His Glu Glu Asp His Ser Gln Phe Tyr Leu Asn Gln Leu Leu Glu Phe Met His Ile Trp Lys Val Ser Arg Gln Cys Leu Leu Thr Leu Ile Arg Lys Tyr Asp Phe His Leu Lys Tyr Leu Leu Lys Thr Gln Glu Asn Val Tyr Asn Ile Ile Glu Glu Val Lys Lys Ile Cys Ser Val Leu Gly Cys Val Glu Thr Lys Gln Ile Thr Asp Ala Val Asn Glu Leu Ser Leu Ile Leu Gln Arg Lys Gly Glu Asn Phe Tyr Gln Ser Ser Glu Thr Ser Ala Lys Gly Leu Ile Glu Lys Val Thr Thr Glu Leu Ser Thr Ser Ile Tyr Gln Leu Ile Asn Val Tyr Cys Asn Ser Phe Tyr Ala Asp Phe Gln Pro Val Asn Val Pro Arg Cys Thr Ser Tyr Leu Asn Pro Gly Leu Pro Ser His Leu Ser Phe Thr Val Tyr Ala Ala His Asn Ile Pro Glu Thr Trp Val His Arg Ile Asn Phe Pro Leu Glu Ile Lys Ser Leu Pro Arg Glu Ser Met Leu Thr Val Lys Leu Phe Gly Ile Ala Cys Ala Thr Asn Asn Ala Asn Leu Leu Ala Trp Thr Cys Leu Pro Leu Phe Pro Lys Glu Lys Ser Ile Leu Gly Ser Met Leu Phe Ser Met Thr Leu Gln Ser Glu Pro Pro Val Glu Met Ile Thr Pro Gly Val Trp Asp Val Ser Gln Pro Ser Pro Val Thr Leu Gln Ile Asp Phe Pro Ala Thr Gly Trp Glu Tyr Met Lys Pro Asp Ser Glu Glu Asn Arg Ser Asn Leu Glu Glu Pro Leu Lys Glu Cys Ile Lys His

Ile Ala Arg Leu Ser Gln Lys Gln Thr Pro Leu Leu Leu Ser Glu Glu 660 665 Lys Lys Arg Tyr Leu Trp Phe Tyr Arg Phe Tyr Cys Asn Asn Glu Asn 680 685 Cys Ser Leu Pro Leu Val Leu Gly Ser Ala Pro Gly Trp Asp Glu Arg 700 695 Thr Val Ser Glu Met His Thr Ile Leu Arg Arg Trp Thr Phe Ser Gln 710 715 Pro Leu Glu Ala Leu Gly Leu Leu Thr Ser Ser Phe Pro Asp Gln Glu 730 725 Ile Arg Lys Val Ala Val Gln Gln Leu Asp Asn Leu Leu Asn Asp Glu-740 745 Leu Leu Glu Tyr Leu Pro Gln Leu Val Gln Ala Val Lys Phe Glu Trp 760 765 Asn Leu Glu Ser Pro Leu Val Gln Leu Leu Leu His Arg Ser Leu Gln 775 780 Ser Ile Gln Val Ala His Arg Leu Tyr Trp Leu Leu Lys Asn Ala Glu 790 795 Asn Glu Ala Tyr Phe Lys Ser Trp Tyr Gln Lys Leu Leu Ala Ala Leu 805 810 Gln Phe Cys Ala Gly Lys Ala Leu Asn Asp Glu Phe Ser Lys Glu Gln 820 825 830 Lys Leu Ile Lys Ile Leu Gly Asp Ile Gly Glu Arg Val Lys Ser Ala 840 Ser Asp His Gln Arg Gln Glu Val Leu Lys Lys Glu Ile Gly Arg Leu 855 860 Glu Glu Phe Phe Gln Asp Val Asn Thr Cys His Leu Pro Leu Asn Pro 870-875 Ala Leu Cys Ile Lys Gly Ile Asp His Asp Ala Cys Ser Tyr Phe Thr 890 885 Ser Asn Ala Leu Pro Leu Lys Ile Thr Phe Ile Asn Ala Asn Leu Met 905 900 Gly Lys Asn Ile Ser Ile Ile Phe Lys Ala Gly Asp Asp Leu Arg Gln 920 Asp Met Leu Val Leu Gln Leu Ile Gln Val Met Asp Asn Île Trp Leu 935 · 940 Gln Glu Gly Leu Asp Met Gln Met Ile Ile Tyr Arg Cys Leu Ser Thr 955 950 Gly Lys Asp Gln Arg Leu Val Gln Met Val Pro Asp Ala Val Thr Leu 965 970 975 Ala Lys Ile His Arg His Ser Gly Leu Ile Gly Pro Leu Lys Glu Asn 980 985 990 Thr Ile Lys Lys Trp Phe Ser Gln His Asn His Leu Lys Ala Asp Tyr 995 1000 1005 Glu Lys Ala Leu Arg Asn Phe Phe Tyr Ser Cys Ala Gly Trp Cys Val 1015 1020 Val Thr Phe Ile Leu Gly Val Cys Asp Arg His Asn Asp Asn Ile Met 1035 1040 1030 Leu Thr Lys Ser Gly His Met Phe His Ile Asp Phe Gly Lys Phe Leu 1045 1050 1055 Gly His Ala Gln Thr Phe Gly Gly Ile Lys Arg Asp Arg Ala Pro Phe 1060 1065 1070 Ile Phe Thr Ser Glu Met Glu Tyr Phe Ile Thr Glu Gly Gly Lys Asn 1075 1080 1085 Pro Gln His Phe Gln Asp Phe Val Glu Leu Cys Cys Arg Ala Tyr Asn 1090 1095 1100 Ile Ile Arg Lys His Ser Gln Leu Leu Leu Asn Leu Leu Glu Met Met 1110 1115 Leu Tyr Ala Glý Leu Pro Glu Leu Ser Gly Ile Gln Asp Leu Lys Tyr 1125 1130 1135 Val Tyr Asn Asn Leu Arg Pro Gln Asp Thr Asp Leu Glu Ala Thr Ser 1145 1150 1140 His Phe Thr Lys Lys Ile Lys Glu Ser Leu Glu Cys Phe Pro Val Lys 1160 1165

Leu Asn Asn Leu Ile His Thr Leu Ala Gln Met Ser Ala Ile Ser Pro 1170 1175 1180 Ala Lys Ser Thr Ser Gln Thr Phe Pro Gln Glu Ser Cys Leu Leu Ser 1195 1190 Thr Thr Arg Ser Ile Glu Arg Ala Thr Ile Leu Gly Phe Ser Lys Lys 1205 1210 1215 Ser Ser Asn Leu Tyr Leu Ile Gln Val Thr His Ser Asn Asn Glu Thr 1220 1225 1230 Ser Leu Thr Glu Lys Ser Phe Glu Gln Phe Ser Lys Leu His Ser Gln 1235 1240 1245 Leu Gln Lys Gln Phe Ala Ser Leu Thr Leu Pro Glu Phe Pro His Trp 1250 1255 1260 Trp His Leu Pro Phe Thr Asn Ser Asp His Arg Arg Phe Arg Asp Leu 1265 . 1270 1275 Asn His Tyr Met Glu Gln Ile Leu Asn Val Ser His Glu Val Thr Asn 1285 1290 1295 Ser Asp Cys Val Leu Ser Phe Phe Leu Ser Glu Ala Gly Gln Gln Thr 1300 1305 1310 Val Glu Glu Ser Ser Pro Val Tyr Leu Gly Glu Lys Phe Pro Asp Lys 1320 1315 1325 Lys Pro Lys Val Gln Leu Val Ile Ser Tyr Glu Asp Val Lys Leu Thr 1335 1340 Ile Leu Val Lys His Met Lys Asn Ile His Leu Pro Asp Gly Ser Ala 1345 1350 1355 Pro Ser Ala His Val Glu Phe Tyr Leu Leu Pro Tyr Pro Ser Glu Val 1365 1370 1375 Arg Arg Arg Lys Thr Lys Ser Val Pro Lys Cys Thr Asp Pro Thr Tyr 1380 1385 1390 Asn Glu Ile Val Val Tyr Asp Glu Val Thr Glu Leu Gln Gly His Val 1400 1405 1395 Leu Met Leu Ile Val Lys Ser Lys Thr Val Phe Val Gly Ala Ile Asn 1410 1415 1420 Ile Arg Leu Cys Ser Val Pro Leu Asp Lys Glu Lys Trp Tyr Pro Leu 1425 1430 1435 1440 Gly Asn Ser Ile Ile Xaa Pro Leu Leu Leu Phe Ser Ser Phe Gly Met 1445 1450 1455 Lys Ser Leu Glu Lys Asp Glu Phe Val Gly Gly Met Leu Leu Ser Asn 1460 1465 Pro Ile Trp 1475

<210> 1820 <211> 121

<212> PRT

<213> Homo sapiens

<221> misc_feature <222> (1)...(119)

<223> Xaa = any amino acid or nothing

<400> 1820

 Ser His Gly
 Ser Ile
 Ser Ile
 Leu
 Asn Leu His Gln Gly
 Cys Val Phe
 15

 Leu Pro Ser Leu
 Pro Ala Gln Gly
 Leu Arg Cys Tyr Arg Cys Leu Ala
 20
 25
 30

 Val Leu Glu Gly
 Ala Ser Cys Ser Val Val Ser Cys Pro Phe
 Leu Asp

 35
 40
 45

 Gly Val Cys Val Ser Gln Lys Val Ser Val Cys Trp Gln Xaa Cys Pro

 50
 55
 60

 Trp Gly Ala Arg Ala Glu Gly Arg Leu Ser Ala Val Val Asp Ser Gln
 65

 Ile Ser Cys Cys Lys Gly Asp Leu Cys Asn Ala Val Val Leu Ala Ala

 85
 90
 95

 Gly Ser Pro Trp Ala Leu Cys Val Gln Leu Leu Leu Ser Leu Gly Ser

 100
 105
 110

 Val Phe Leu Trp Ala Leu Leu

 119
 119

<210> 1821 <211> 134 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(132) <223> Xaa = any amino acid or nothing

<400> 1821 Leu Arg Gln Ser Leu Asn Ser Val Pro Gln Ala Gly Val Gln Trp Arg 1 5 10 Asp Ser Ser Leu Gln Ala Pro Pro Pro Arg Phe Thr Pro Leu Ser Cys 25 20 Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Arg Leu Pro Pro Cys Leu 40 35 Ala Asn Phe Leu Tyr Phe Xaa Xaa Arg Arg Gly Phe Thr Met Leu Ala 60 55 Arg Met Val Leu Ile Ser Xaa Pro Arg Asp Pro Pro Ala Ser Ala Ser 75 70 Gln Ser Thr Glu Ile Thr Gly Gly Ser His Arg Ala Gln His Pro Thr 90 85 Asp Ser Arg Asp His Ser Glu Arg Ser Val Lys Lys Ser His Glu Val 110 105 Ile Ser Glu Leu Arg Met Lys Val Ile Lys Cys Lys Val Ala Phe Ser 115 120 125 Lys Asn Pro Ile 130 132

<210> 1822 <211> 64 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(63) <223> Xaa = any amino acid or nothing

<210> 1823

<211> 166 <212> PRT <213> Homo sapiens

<400> 1823 Thr His Ala Ser Gly Gly Ala Arg Ser Gly Ala Gly Trp Ala Gly Arg Gly Val Arg Ala Gly Thr Glu Ala Gly Arg Gly Gly Ile Phe Leu Thr Leu Ser Ile Leu Arg Thr Arg Asp Leu Pro Ser Gly Ala Met Ser Glu 40 Gly Val Asp Leu Ile Asp Ile Tyr Ala Asp Glu Glu Phe Asn Gln Asp 55 Pro Glu Phe Asn Asn Thr Asp Gln Ile Asp Leu Tyr Asp Asp Val Leu 75 65 70 Thr Ala Thr Ser Gln Pro Ser Asp Asp Arg Ser Ser Ser Thr Glu Pro 85 90 Pro Pro Pro Val Arg Gln Glu Pro Ser Pro Lys Pro Asn Asn Lys Thr 105 110 100 Pro Ala Ile Leu Tyr Thr Tyr Ser Gly Leu Arg Asn Arg Arg Ala Ala 125 115 120 Val Tyr Val Gly Ser Phe Ser Trp Trp Thr Thr Asp Gln Gln Leu Ile 140 135 Gln Val Ile Arg Ser Ile Gly Val Tyr Asp Val Gly Glu Val Lys Phe 150 155 Ala Glu Asn Arg Ala Lys 165 166

<210> 1824 <211> 1755 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(1753) <223> Xaa = any amino acid or nothing

<400> 1824 Arg Pro Leu Phe Ala Arg Glu Gly Gly Ile Tyr Ala Val Leu Val Cys 10 Met Gln Glu Tyr Lys Thr Ser Val Leu Val Gln Gln Ala Gly Leu Ala 20 25 Ala Leu Lys Met Leu Ala Val Ala Ser Ser Ser Glu Ile Pro Thr Phe 35 40 Val Thr Gly Arg Asp Ser Ile His Ser Leu Phe Asp Ala Gln Met Thr 55 60 Arg Glu Ile Phe Ala Ser Ile Asp Ser Ala Thr Arg Pro Gly Ser Glu 75 70 Ser Leu Leu Thr Val Pro Ala Ala Val Ile Leu Met Leu Asn Thr 85 Glu Gly Cys Ser Ser Ala Ala Arg Asn Gly Leu Leu Leu Leu Asn Leu 110 100 105 Leu Leu Cys Asn His His Thr Leu Gly Asp Gln Ile Ile Thr Gln Glu 125 115 120 Leu Arg Asp Thr Leu Phe Arg His Ser Gly Ile Ala Pro Arg Thr Glu 135 140 Pro Met Pro Thr Thr Arg Thr Ile Leu Met Met Leu Leu Asn Arg Tyr 145 150 155 160 Ser Glu Pro Pro Gly Ser Pro Glu Arg Ala Ala Leu Glu Thr Pro Ile 165 170

Ile Gln Gly Gln Asp Gly Ser Pro Glu Leu Leu Ile Arg Ser Leu Val Gly Gly Pro Ser Ala Glu Leu Leu Leu Asp Leu Glu Arg Val Leu Cys Arg Glu Gly Ser Pro Gly Gly Ala Val Arg Pro Leu Leu Lys Arg Leu Gln Gln Glu Thr Gln Pro Phe Leu Leu Leu Leu Arg Thr Leu Asp Ala Pro Gly Pro Asn Lys Thr Leu Leu Ser Val Leu Arg Val Ile Thr Arg Leu Leu Asp Phe Pro Glu Ala Met Val Leu Pro Trp His Glu Val 260 265 Leu Glu Pro Cys Leu Asn Cys Leu Ser Gly Pro Ser Ser Asp Ser Glu Ile Val Gln Glu Leu Thr Cys Phe Leu His Arg Leu Ala Ser Met His Lys Asp Tyr Ala Val Val Leu Cys Cys Leu Gly Ala Lys Glu Ile Leu Ser Lys Val Leu Asp Lys His Ser Ala Gln Leu Leu Gly Cys Glu Leu Arg Asp Leu Val Thr Glu Cys Glu Lys Tyr Ala Gln Leu Tyr Ser Asn Leu Thr Ser Ser Ile Leu Ala Gly Cys Ile Gln Met Val Leu Gly Gln Ile Glu Asp His Arg Arg Thr His Gln Pro Ile Asn Ile Pro Phe Phe Asp Val Phe Leu Arg His Leu Cys Gln Gly Ser Ser Val Glu Val Lys Glu Asp Lys Cys Trp Glu Lys Val Glu Val Ser Ser Asn Pro His Arg Ala Ser Lys Leu Thr Asp His Asn Pro Lys Thr Tyr Trp Glu Ser Asn Gly Ser Thr Gly Ser His Tyr Ile Thr Leu His Met His Arg Gly Val Leu Val Arg Gln Leu Thr Leu Leu Val Ala Ser Glu Asp Ser Ser Tyr Met Pro Ala Arg Val Val Phe Gly Gly Asp Ser Thr Ser Cys Ile Gly Thr Glu Leu Asn Thr Val Asn Val Met Pro Ser Ala Ser Arg Val Ile Leu Leu Glu Asn Leu Asn Arg Phe Trp Pro Ile Ile Gln Ile Arg Ile Lys Arg Cys Gln Gln Gly Gly Ile Asp Thr Arg Val Arg Gly Val Glu Val Leu Gly Pro Lys Pro Thr Phe Trp Pro Leu Phe Arg Glu Gln Leu Cys Arg Arg Thr Cys Leu Phe Tyr Thr Ile Arg Ala Gln Ala Trp Ser Arg Asp Ile Ala Glu Asp His Arg Arg Leu Leu Gln Leu Cys Pro Arg Leu Asn Arg Val Leu Arg His Glu Gln Asn Phe Ala Asp Arg Phe Leu Pro Asp Asp Glu Ala Ala Gln Ala Leu Gly Lys Thr Cys Trp Glu Ala Leu Val Ser Pro Leu Val Gln Asn Ile Thr Ser Pro Asp Ala Glu Gly Val Ser Ala Leu Gly Trp Leu Leu Asp Gln Tyr Leu Glu Gln Arg Glu Thr Ser Arg Asn Pro Leu Ser Arg Ala Ala Ser Phe Ala Ser Arg Val Arg Arg Leu Cys His Leu Leu Val His Val Glu Pro Pro . 660 Gly Pro Ser Pro Glu Pro Ser Thr Arg Pro Phe Ser Lys Asn Ser Lys 

Gly Arg Asp Arg Ser Pro Ala Pro Ser Pro Val Leu Pro Ser Ser Ser 695 700 Leu Arg Asn Ile Thr Gln Cys Trp Leu Ser Val Val Gln Glu Gln Val 710 715 Ser Arg Phe Leu Ala Ala Ala Trp Arg Ala Pro Asp Phe Val Pro Arg 725 730 Tyr Cys Lys Leu Tyr Glu His Leu Gln Arg Ala Gly Ser Glu Leu Phe 740 745 750 Gly Pro Arg Ala Ala Phe Met Leu Ala Leu Arg Ser Gly Phe Ser Gly 760 Ala Leu Leu Gln Gln Ser Phe Leu Thr Ala Ala His Met Ser Glu Gln 770 775 780 Phe Ala Arg Tyr Ile Asp Gln Gln Ile Gln Gly Gly Leu Ile Gly Gly 790 795 Ala Pro Gly Val Glu Met Leu Gly Gln Leu Gln Arg His Leu Glu Pro 805 810 Ile Met Val Leu Ser Gly Leu Glu Leu Ala Thr Thr Phe Glu His Phe 830 820 825 Tyr Gln His Tyr Met Ala Asp Arg Leu Leu Ser Phe Gly Ser Ser Trp 840 845 Leu Glu Gly Ala Val Leu Glu Gln Ile Gly Leu Cys Phe Pro Asn Arg 860 855 Leu Pro Gln Leu Met Leu Gln Ser Leu Ser Thr Ser Glu Glu Leu Gln 875 870 Arq Gln Phe His Leu Phe Gln Leu Gln Arg Leu Asp Lys Leu Phe Leu 885 890 Glu Glu Glu Asp Glu Glu Glu Lys Arg Leu Xaa Glu Glu Glu Glu Glu 905 900 Glu Glu Glu Glu Ala Glu Lys Glu Leu Phe Ile Glu Asp Pro Ser 915 920 925 Pro Ala Ile Ser Ile Leu Val Leu Ser Pro Arg Cys Trp Pro Val Ser 930 935 940 Pro Leu Cys Tyr Leu Tyr His Pro Arg Lys Cys Leu Pro Thr Glu Phe 950 955 960 Cys Asp Ala Leu Asp Arg Phe Ser Ser Phe Tyr Ser Gln Ser Gln Asn 970 965 His Pro Val Leu Asp Met Gly Pro His Arg Arg Leu Gln Trp Thr Trp 985 980 Leu Gly Arg Ala Glu Leu Gln Phe Gly Lys Gln Ile Leu His Val Ser 995 1000 1005 Thr Val Gln Met Trp Leu Leu Leu Lys Phe Asn Gln Thr Glu Glu Val 1020 1015 Ser Val Glu Thr Leu Leu Lys Asp Ser Asp Leu Ser Pro Glu Leu Leu 1030 1035 Leu Gln Ala Leu Val Pro Leu Thr Ser Gly Asn Gly Pro Leu Thr Leu 1045 1050 1055 His Glu Gly Gln Asp Phe Pro His Gly Gly Val Leu Arg Leu His Glu 1060 1065 1070 Pro Gly Pro Gln Arg Ser Gly Glu Ala Leu Trp Leu Ile Pro Pro Gln 1080 Ala Tyr Leu Asn Val Glu Lys Asp Glu Gly Arg Thr Leu Glu Gln Lys 1090 1095 1100 Arg Asn Leu Leu Ser Cys Leu Leu Val Arg Ile Leu Lys Ala His Gly 1105 1110 1115 1120 Glu Lys Gly Leu His Ile Asp Gln Leu Val Cys Leu Val Leu Glu Ala 1125 1130 Trp Gln Lys Gly Pro Asn Pro Pro Gly Thr Leu Gly His Thr Val Ala 1140 1145 1150 Gly Gly Val Ala Cys Thr Ser Thr Asp Val Leu Ser Cys Ile Leu His 1155 1160 1165 Leu Leu Gly Gln Gly Tyr Val Lys Arg Arg Asp Asp Arg Pro Gln Ile 1180 1175 Leu Met Tyr Ala Ala Pro Glu Pro Met Gly Pro Cys Arg Gly Gln Ala 1195

Asp Val Pro Phe Cys Gly Ser Gln Ser Glu Thr Ser Lys Pro Ser Pro 1205 1210 1215 Glu Ala Val Ala Thr Leu Ala Ser Leu Gln Leu Pro Ala Gly Arg Thr 1225 1230 1220 Met Ser Pro Gln Glu Val Glu Gly Leu Met Lys Gln Thr Val Arg Gln 1235 1240 1245 Val Gln Glu Thr Leu Asn Leu Glu Pro Asp Val Ala Gln His Leu Leu 1250 1255 1260 Ala His Ser His Trp Gly Ala Glu Gln Leu Leu Gln Ser Tyr Ser Glu 1270 1275 Asp Pro Glu Pro Leu Leu Leu Ala Ala Gly Leu Cys Val His Gln Ala 1285 1290 1295 Gln Ala Val Pro Val Arg Pro Asp His Cys Pro Val Cys Val Ser Pro 1300 1305 1310 Leu Gly Cys Asp Asp Leu Pro Ser Leu Cys Cys Met His Tyr Cys 1315 1320 1325 Cys Lys Ser Cys Trp Asn Glu Tyr Leu Thr Thr Arg Ile Glu Gln Asn 1330 1335 1340 Leu Val Leu Asn Cys Thr Cys Pro Ile Ala Asp Cys Pro Ala Gln Pro 1350 1355 1360 Thr Gly Ala Phe Ile Arg Ala Ile Val Ser Ser Pro Glu Val Ile Ser 1365 1370 1375 Lys Tyr Glu Lys Ala Leu Leu Arg Gly Tyr Val Glu Ser Cys Ser Asn 1380 1385 1390 Leu Thr Trp Cys Thr Asn Pro Gln Gly Cys Asp Arg Ile Leu Cys Arg 1395 1400 1405 Gln Gly Leu Gly Cys Gly Thr Thr Cys Ser Lys Cys Gly Trp Ala Ser 1410 1415 . 1420 Cys Phe Asn Cys Ser Phe Pro Glu Ala His Tyr Pro Ala Ser Cys Gly 425 1430 1435 1440 His Met Ser Gln Trp Val Asp Asp Gly Gly Tyr Tyr Asp Gly Met Ser 1445 1450 1455 Val Glu Ala Gln Ser Lys His Leu Ala Lys Leu Ile Ser Lys Arg Cys 1460 1465 . 1470 Pro Ser Cys Gln Ala Pro Ile Glu Lys Asn Glu Gly Cys Leu His Met 1475 1480 1485 Thr Cys Ala Lys Cys Asn His Gly Phe Cys Trp Arg Cys Leu Lys Ser 1490 1495 1500 Trp Lys Pro Asn His Lys Asp Tyr Tyr Asn Cys Ser Ala Met Val Ser 1505 1510 1515 1520 Lys Ala Ala Arg Gln Glu Lys Arg Phe Gln Asp Tyr Asn Glu Arg Cys 1525 1530 1535 Thr Phe His His Gln Ala Arg Glu Phe Ala Val Asn Leu Arg Asn Arg 1550 1540 1545 Val Ser Ala Ile His Glu Val Pro Pro Pro Arg Ser Phe Thr Phe Leu 1555 1560 1565 Asn Asp Ala Cys Gln Gly Leu Glu Gln Ala Arg Lys Val Leu Ala Tyr 1570 1575 1580 Ala Cys Val Tyr Ser Phe Tyr Ser Gln Asp Ala Glu Tyr Met Asp Val 1590 1595 1600 Val Glu Gln Gln Thr Glu Asn Leu Glu Leu His Thr Asn Ala Leu Gln 1605 1610 1615 Ile Leu Leu Glu Glu Thr Leu Leu Arg Cys Arg Asp Leu Ala Ser Ser 1620 1625 1630 Leu Arg Leu Leu Arg Ala Asp Cys Leu Ser Thr Gly Met Glu Leu Leu 1635 1640 1645 Arg Arg Ile Gln Glu Arg Leu Leu Ala Ile Leu Gln His Ser Ala Gln 1650 1655 1660 Asp Phe Arg Val Gly Leu Gln Ser Pro Ser Val Glu Ala Trp Glu Ala 1665 1670 1675 1680 Lys Gly Pro Asn Met Pro Gly Ser Gln Pro Gln Ala Ser Ser Gly Pro 1690 1695 1685 Glu Ala Glu Glu Glu Glu Asp Asp Glu Asp Asp Val Pro Glu Trp 1705 1700

Gln Gln Asp Glu Phe Asp Glu Glu Leu Asp Asn Asp Ser Phe Ser Tyr
1715 1720 1725

Asp Glu Ser Glu Asn Leu Asp Gln Glu Thr Phe Phe Phe Gly Asp Glu
1730 1735 1740

Glu Glu Asp Glu Asp Glu Ala Tyr Asp
1745 1750 1753

<210> 1825
<211> 336
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(333)
<223> Xaa = any amino acid or nothing

<400> 1825 Gly Thr Ser Arg Asn Gln His Ser Pro Lys Thr His Ala Xaa Arg Ser Ser Trp Pro Gln Pro Pro Pro Leu Phe Leu Pro Pro Leu Gln Pro Gln Ala Thr Gly Arg Arg Arg Arg Thr Arg Thr Gln Gln Arg Thr Ala Ala Leu Leu Thr Asp Gly Thr Thr Lys Thr Gly Ala Ala Trp Ser Arg Arg Pro Ser Leu Cys Trp Pro Ser Arg Thr Thr Gly Ala Pro Gly Ala Lys Xaa Ala Val Leu Val Arg Ser Ala Thr Pro Thr Thr Asn Pro Pro Asn Pro Gln Ser Pro Thr Gly Ala Ala Gly Lys Leu Arg Ala Pro Gly Asn Arg Ala Gly Ser Glu Pro Ser Ser Gln Glu Pro Pro Pro Asp Gly Thr Arg Arg Pro Ala Ser Ile Thr Gly Val Ala Gln Ser Pro Ala Thr Arg Ala Thr Pro Ser Leu Pro Cys Leu His Val Pro Ala Pro Ser Arg Gly Gln Thr Leu Gly Val Arg Thr Thr Gly Arg Ala Ser Arg Leu Thr Val Asp Arg Ser Arg Leu Ser Trp Pro Gly Arg Ser Ala Arg Ser Gly Gly Gly Arg Trp Arg Pro Asn Ala Pro Arg Gly Arg Trp Pro Arg Ala Pro Xaa Ser Trp Glu Pro Gly Ser Trp Thr Glu Pro Trp Arg Trp Pro Phe Pro Ala Ala Glu Ser Pro Pro His Arg Cys Ile Tyr Cys Thr Asn His Val Ser Pro Ala Gly Pro Ala Arg Pro Ser His Val Tyr Ile Ile Arg Ala Thr Ile Asn Ser Ile Ser His Pro Leu Cys Arg Ala Gln Ser Ser Pro Trp Glu Ala Ala Gly Val Trp Arg Arg Pro Ala Gln Pro Ala Pro Thr Ser Asp Val Asn Ile Asn Leu Leu Arg Lys Pro Arg Val Lys 290 295 300 Arg His Asp Leu Ile Tyr Gln Phe Leu Gly Asn Thr Leu Trp Glu Glu Gly Arg Gln Arg Pro Pro Glu Thr Leu Gln Pro Ala Arg 

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<212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(126)
    <223> Xaa = any amino acid or nothing
    <400> 1826
Phe Phe Phe Gly Asn Gly Val Ser Pro Cys Pro Gln Ala Gly Val Xaa
                                 10
               5
 1
Trp His Asp Leu Asp Ser Leu Gln Asn Leu Pro Pro Gly Phe Lys Arg
                                                30
        20
                             25
Phe Ser Tyr Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg His Val Pro
                          40
       35
Pro Arg Gln Ala Asn Phe Cys Ile Phe Met Xaa Arg Arg Gly Phe Thr
              55
Met Leu Ala Arg Met Val Ser Ile Ser Kaa Pro Arg Asp Leu Pro Ala
                            75
               70
Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His His Ala Pro
               85
                                90
Pro Gln Met Asp Phe Thr Phe Ala Leu Leu Cys Phe Ala Pro Lys Gly
                                              110
        100
                            105
Cys Leu Pro Arg Gln Lys Glu Gly Gly Thr Leu Asn Leu Ile
                                           125 126
    <210> 1827
    <211> 92
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(90)
     <223> Xaa = any amino acid or nothing
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<210> 1828
<211> 328
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(324)
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<210> 1826 <211> 128

## <223> Xaa = any amino acid or nothing

<400> 1828 His Leu Leu Ser Phe His Leu Trp Ser Ala Ser Leu Asp Cys Leu Glu 10 Gln Leu Ser Gln Glu Arg His Val Lys Gly Met Leu Leu Gly Pro Pro 25 Pro Val Asn Glu Ser Thr Lys Pro Ser Pro Ser Pro Trp Lys Leu Thr 40 Pro Pro Met Cys Ser Ile Pro Pro Val Phe Pro Pro Lys Ser Gly Ser -55 Pro Thr Thr Ser Trp Ser Pro Ser Gly His Ser Lys Leu Glu Val Glu 70 75 Arg Ala Gln Thr Gly Pro Phe Cys Leu His Ile Tyr Cys Pro Xaa Pro 90 Gly Val Thr Asp Asn Thr Thr Ser Leu Leu His Tyr Ile Pro Phe Pro 105 100 Arg Leu Ser Gly Leu Val Cys Phe Pro Ala His Xaa Phe Pro Ser Tyr 120 125 115 Trp Thr Gly His Ser Phe Ala Ser Gln Ala Trp Leu Arg Gln Val Pro 135 140 130 Glu Val Ser Lys His Leu Gln Cys Pro Ser Ala Glu Ser Leu Leu Thr 155 150 Met Glu Tyr His Gln Pro Glu Asp Pro Ala Pro Gly Lys Ala Gly Thr 165 170 175 Ala Glu Ala Val Ile Pro Glu Asn His Glu Val Leu Ala Gly Pro Asp 185 Glu His Pro Gln Asp Thr Asp Ala Arg Asp Ala Asp Gly Glu Ala Arg 195 200 205 Glu Arg Glu Pro Arg Arg Pro Ser Phe Ala Ala Xaa Pro Val Trp Gly 220 215 Gln Pro Glu Ser Pro Leu Pro Glu Ala Ser Ser Ala Pro Pro Gly Pro 225 230 235 240 Thr Leu Gly Thr Leu Pro Glu Val Glu Thr Ile Arg Ala Cys Ser Met 245 250 Pro Gln Glu Leu Pro Kaa Ser Pro Arg Thr Arg Gln Pro Glu Pro Asp 260 265 Phe Tyr Cys Val Lys Trp Ile Pro Trp Lys Gly Glu Gln Thr Pro Ile 275 280 285 Ile Thr Gln Ser Thr Asn Gly Pro Leu Pro Ser Pro Cys His His Glu 290 · 295 300 His Pro Leu Ser Ser Val Glu Gly Glu Ala Pro Pro Ala Glu Gly Ser 310 Asp His Ile Gly 324

<210> 1829

<211> 717

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(717)

<223> Xaa = any amino acid or nothing

<400> 1829

Tyr Ser Pro Ile Arg Leu Leu Glu Val Cys Val Pro Leu Pro Lys Ile

1 5 10 15

Phe Ile Lys Arg Gln Ala Pro Leu Lys Val Ser Leu Leu Gln Asp Leu
20 25

Lys Asp Phe Phe Gln Lys Val Ser Gln Val Tyr Val Ala Ile Asp Glu Arg Leu Ala Ser Leu Lys Thr Asp Thr Phe Ser Lys Thr Arg Glu Glu Lys Met Glu Asp Ile Phe Ala Gln Lys Glu Met Glu Glu Glu Phe Lys Asn Trp Ile Glu Lys Met Gln Ala Arg Leu Met Ser Ser Ser Val Asp Thr Pro Gln Gln Leu Gln Ser Val Phe Glu Ser Leu Ile Ala Lys Lys Gln Ser Leu Cys Glu Val Leu Gln Ala Trp Asn Asn Arg Leu Gln Asp Leu Phe Gln Gln Glu Lys Gly Arg Lys Arg Pro Ser Val Pro Pro Ser Pro Gly Arg Leu Arg Gln Gly Glu Glu Ser Lys Ile Ser Ala Met Asp Ala Ser Pro Arg Asn Ile Ser Pro Gly Leu Gln Asn Gly Glu Lys Glu Asp Arg Phe Leu Thr Thr Leu Ser Ser Gln Ser Ser Thr Ser Ser Thr His Leu Gln Leu Pro Thr Pro Pro Glu Val Met Ser Glu Gln Ser Val Gly Gly Pro Pro Glu Leu Asp Thr Ala Ser Ser Ser Glu Asp Val Phe Asp Gly His Leu Leu Gly Ser Thr Asp Ser Gln Val Lys Glu Lys Ser Thr Met Lys Ala Ile Phe Ala Asn Leu Leu Pro Gly Asn Ser Tyr Asn Pro Ile Pro Phe Pro Phe Asp Pro Asp Lys His Tyr Leu Met Tyr Glu His Glu Arg Val Pro Ile Ala Val Cys Glu Lys Glu Pro Ser Ser Ile Ile Ala Phe Ala Leu Ser Cys Lys Glu Tyr Arg Asn Ala Leu Glu Glu Leu Ser Lys Ala Thr Gln Trp Asn Ser Ala Glu Glu Gly Leu Pro Thr Asn Ser Thr Ser Asp Ser Arg Pro Lys Ser Ser Ser Pro Ile Arg Leu Pro Glu Met Ser Gly Gly Gln Thr Asn Arg Thr Thr Glu Thr Glu Pro Gln Pro Thr Lys Lys Ala Ser Gly Met Leu Ser Phe Phe Arg Gly Thr Ala Gly Lys Ser Pro Asp Leu Ser Ser Gln Lys Arg Glu Thr Leu Arg Gly Ala Asp Ser Ala Tyr Tyr Gln Val Gly Gln Thr Gly Lys Glu Gly Thr Glu Asn Gln Gly Val Glu Pro Gln Asp Glu Val Asp Gly Gly Asp Thr Gln Lys Lys Gln Leu Ile Asn Pro His Val Glu Leu Gln Phe Ser Asp Ala Asn Ala Lys Phe Tyr Cys Arg Leu Tyr Tyr Ala Gly Glu Phe His Lys Met Arg Glu Val Ile Leu Asp Ser Ser Glu Glu Asp Phe 455 460 Ile Arg Ser Leu Ser His Ser Ser Pro Trp Gln Ala Arg Gly Gly Lys Ser Gly Ala Ala Phe Tyr Ala Thr Glu Asp Asp Arg Phe Ile Leu Lys Gln Met Pro Arg Leu Glu Val Gln Ser Phe Leu Asp Phe Ala Pro His Tyr Phe Asn Tyr Ile Thr Asn Ala Val Gln Gln Lys Arg Pro Thr Ala Leu Ala Lys Ile Leu Gly Val Tyr Arg Ile Gly Tyr Lys Asn Ser Gln 

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Asn Asn Thr Glu Lys Lys Leu Asp Leu Leu Val Met Glu Asn Leu Phe
                                 555
545 ·
                 550
Tyr Gly Arg Lys Met Ala Gln Val Phe Asp Leu Lys Gly Ser Leu Arg
             565
                               570
Asn Arg Asn Val Lys Thr Asp Thr Gly Lys Glu Ser Cys Asp Val Val
         580
                           585
                                              590
Leu Leu Asp Glu Asn Leu Leu Lys Met Val Arg Asp Asn Pro Leu Tyr
                                          605
               600
Ile Arg Ser His Ser Lys Ala Val Leu Arg Thr Ser Ile His Ser Asp
            615
                                     620
Ser His Phe Leu Ser Ser His Leu Ile Ile Asp Tyr Ser Leu Leu Val
        630 ,
                                  635
Gly Arg Asp Asp Thr Ser Asn Glu Leu Val Val Gly Ile Ile Asp Tyr
              645 650
Ile Arg Thr Phe Thr Trp Asp Lys Leu Glu Met Val Val Lys Ser
                           665
Thr Gly Ile Leu Gly Gly Gln Gly Xaa Met Pro Thr Val Val Ser Pro
                       680
                                        685
Glu Leu Tyr Arg Thr Arg Phe Cys Glu Ala Met Asp Asn Tyr Phe Leu
                                 700
                    695
Met Val Pro Asp His Cys Thr Gly Leu Gly Leu Asn Cys
                  710
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<210> 1830
<211> 84
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(82)

<223> Xaa = any amino acid or nothing

<400> 1830 Gln Gly Cys Gly Ser Ala Gly Thr Leu Ile Ris Tyr Xaa Xaa Glu Cys 5 10 Lys Met Val Gln Leu Leu Trp Lys Thr Val Xaa Gln Phe Leu Ile Lys 20 25 Leu Asn Ile Lys Asp Pro Ala Ile Thr Leu Asp Val Tyr Pro Asn Glu 35 40 Val Lys Asn Tyr Val Arg Thr Lys Thr Tyr Thr Gln Met Phe Ile Ala 55 Asn Phe Ile Met Ala Lys Ser Trp Lys Gln Pro Thr His Pro Ser Val 65 Arg Thr 82

<210> 1831
<211> 111
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(110)
<223> Xaa = any amino acid or nothing

<400> 1831
Glu Ala Ala Ile Arg Gln Pro Glu Pro Asn Ile Leu Asp Val Asn Gln
1 5 10 15

Ile Phe Lys Asp Leu Ala Met Ile Ile His Asp Gln Gly Asp Leu Ile 30 25 20 Asp Ser Ile Glu Ala Asn Ala Glu Ser Ser Glu Val Leu Val Glu Arg 40 35 Ala Pro Gly Gln Leu Gln Arg Pro Ala Tyr Tyr Gln Lys Lys Ser Arg 60 55 Lys Lys Met Cys Leu Val Val Leu Val Gln Thr Ala Ile Ile Leu Ile 75 Cys Glu Arg Ile Met Xaa Val Val Tyr Thr Thr Lys Trp Ser Pro Pro 90 8.5 Ile Val Leu Pro Val Ser Cys Phe Gln Gly Gln Lys Phe Asn 105 100

<210> 1832 <211> 124 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(123) <223> Xaa = any amino acid or nothing

<400> 1832 Thr Gly Gly Arg Gln Gly Lys Asn Asp His Thr Ser Ile Thr Glu Lys 10 1 5 Pro Ser Arg Asp Phe Asn Arg His Leu Ile Thr Gln Asn Ile Xaa Met 25 20 Pro Asn Gln Asp Met Lys Ser Ser Ser Asn Ser Leu Ile Ile Arg Lys 40 45 35 Val Gln Ile Lys Pro Thr Ile Leu Tyr His His Ile Phe Thr Arg Lys 55 60 Ala Lys Met Lys Thr Thr Asp Lys Thr Lys Tyr Arg Xaa Gly Phe Lys 75 70 Ala Ile Thr Thr Leu Ile His Cys Ser Gln Asp Cys Lys Leu Gln Xaa 90 85 Ser Leu Xaa Glu Asn His Phe Met Ile Phe Pro Lys Ala Glu Gln His 105 100 Ile Thr Tyr Asp Thr Thr Ile Pro Phe Leu Arg 120 115

<211> 146
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(142)
<223> Xaa = any amino acid or nothing

<210> 1833

Ala Phe Ser Ala Ala Glu Lys Ala Arg Arg Leu Trp Cys Ser Val Phe 65 70 70 75 75 80

Asn Ile Glu Arg Arg Asn Leu Cys Glu Tyr Pro Thr Lys Leu Ser Phe 85 90 95

Asn Ile Lys Gly Glu Met Thr Phe Ser Asp Lys Thr Glu Phe Thr Thr 100 105 105 110

Asn Arg Pro Ser Leu Lys Met Leu Leu Lys Asp Arg Ile Gln Glu Glu 115 120 125

Gly Lys Met Phe Xaa Lys Glu Lys Cys Phe Lys Arg Lys Glu 130 135 140 142

<210> 1834
<211> 246
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(241)
<223> Xaa = any amino acid or nothing

<400> 1834 Phe Phe Phe Glu Thr Glu Ser Arg Ser Val Ala Gln Ala Gly Val 10 Gln Trp Cys Asn Leu Gly Ser Leu Gln Ala Leu Pro Pro Gly Phe Ser 25 20 His Ser Pro Ala Ser Ala Ser Arg Val Ala Gly Thr Thr Gly Thr Arg 40 His Xaa Ala Arg Leu Ile Phe Tyr Ile Phe Ser Arg Asp Gly Val Ser Pro Cys Xaa Pro Gly Trp Ser Xaa Ser Pro Asp Leu Val Ile Arg Pro 70 Pro Arg Leu Pro Lys Cys Trp Asp Tyr Arg Arg Glu Pro Pro Arg Pro Ala Xaa Phe Phe Val Phe Leu Val Glu Gln Gly Phe Thr Met Leu Ala 100 105 Arg Met Val Ser Ile Ser Xaa Pro Gln Cys Asp Leu Pro Ala Ser Val 120 Ser Gln Asn Ala Gly Ile Thr Gly Val Ser His Cys Ala Trp Pro Cys 135 140 Leu His Phe Cys Phe Phe Gly Phe Phe Glu Met Glu Ser Cys Ser 155 150 Val Ala Gln Ala Glu Val Gln Trp His Asp Leu Arg Ser Leu Gln Ala · 165 170 Pro Pro Pro Gly Phe Thr Pro Phe Ser Cys Leu Ser Leu Pro Gly Ser 180 185 190 Trp Asp Tyr Arg Arg Pro Pro Pro Arg Pro Ala Asn Phe Cys Ile Phe 195 200 205 Ser Arg Asp Gly Val Ser Pro Cys Xaa Pro Gly Trp Ser Arg Ser Pro 215 220 Asp Leu Val Ile Arg Pro Pro Arg Pro Pro Lys Val Leu Gly Leu Gln 225 Ala 241

<210> 1835 <211> 81 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(79) <223> Xaa = any amino acid or nothing

<400> 1835 Phe Phe Phe Glu Met Glu Cys Leu Thr Val Ser Gln Ala Gly Val 10 5 Gln Trp Tyr Asn Leu His Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys 20 25 Gln Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Xaa Arg Val Pro 40 35 Thr Ser Arg Pro Ala Lys Phe Cys Val Ile Phe Xaa Asp Gly Val Ser 60 55 His Cys Gln Pro Gly Trp Ser Ala Val Val Gln Pro Pro Leu His 70 65

<210> 1836
<211> 94
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(92)
<223> Xaa = any amino acid or nothing

<400> 1836 Arg Tyr Asp Xaa Ser Ser Gln Ser Glu Asn Ile Pro Gln Lys Glu Phe 10 Leu Leu Lys Tyr Pro Xaa Cys Thr Ala Thr Leu Gly Met Arg Asn Met 30 25 20 Ser Ile Met Lys Lys Lys Ser Ile Phe Ser Ala Glu Phe Tyr Lys Val 35 40 Ser Leu Pro Ser Leu Leu Leu His Leu Leu Ala Ile Glu Trp Gly Phe 55 His Ile Glu Ile Gln Leu Thr Ile His Gln His Phe Leu Asn Tyr Glu 75 70 Leu Glu Ser Asp Phe Val His Ile Val Glu Tyr Met 85 90

<211> 152
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(150)
<223> Xaa = any amino acid or nothing

<210> 1837

Gly Glu Glu Ser Gly Pro Gly Arg Ala Pro Gly Ser Pro Ala Gly Ala 70 Pro Pro Arg Kaa Arg Gly Leu Ala Pro Asn Ser Arg Pro Ser Phe Leu 90 85 Ser Arg Gly Gln Gly Thr Ser Thr Cys Ser Thr Ala Gly Ser Asn Ser 105 100 Ser Arg Gly Ser Ser Ser Ser Arg Gly Ser Arg Gly Pro Gly Arg Ser 120 125 · 115 Arg Ser Arg Ser Gln Ser Arg Ser Gln Ser Gln Arg Pro Gly Gln Lys 135 140 Arg Arg Glu Glu Pro Arg

<210> 1838
<211> 260
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (260)

<223> Xaa = any amino acid or nothing

<400> 1838 Phe Arg Ala Cys Leu Leu Glu Leu Ile Pro Tyr Ala Pro Thr Leu Ser 5 10 Trp Thr Ala Cys Pro Pro Ala Met Ala Gly Pro Arg Gly Leu Leu Pro 25 20 Leu Cys Leu Leu Ala Phe Cys Leu Ala Gly Phe Ser Phe Val Arg Gly 40 Gln Val Leu Phe Lys Gly Cys Asp Val Lys Thr Thr Phe Val Thr His 60 55 Val Pro Cys Thr Ser Cys Ala Ala Ile Lys Lys Gln Thr Cys Pro Ser 75 70 Gly Trp Leu Arg Glu Leu Pro Asp Gln Ile Thr Gln Asp Cys Arg Tyr 90 Glu Val Gln Leu Gly Gly Ser Met Val Ser Met Ser Gly Cys Arg Arg 105 110 100 Lys Cys Arg Lys Gln Val Val Gln Lys Ala Cys Cys Pro Gly Tyr Trp 115 120 Gly Ser Arg Cys His Glu Cys Pro Gly Gly Ala Glu Thr Pro Cys Asn 135 140 Gly His Gly Thr Cys Leu Asp Gly Met Asp Arg Asn Gly Thr Cys Val 150 155 Cys Gln Glu Asn Phe Arg Gly Ser Ala Cys Gln Glu Cys Gln Asp Pro 165 170 Asn Arg Phe Gly Pro Asp Cys Gln Ser Val Cys Ser Cys Val His Gly 190 180 185 Val Cys Asn His Gly Pro Arg Gly Asp Gly Ser Cys Leu Cys Phe Ala 200 195 Gly Tyr Thr Gly Pro His Cys Asp Gln Glu Leu Pro Val Trp Gln Glu 215 220 Leu Gly Phe Pro Gln Asn Asn Pro Arg Leu Arg Lys Ala Pro Asn Cys 230 235 Lys Cys Leu Pro Gly Xaa His Arg Asn Gly Leu Ile Ala Thr Pro Asn Pro Cys Arg Pro

<210> 1839

260

<211> 90
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(89)
<223> Kaa = any amino acid or nothing

<400> 1839 Phe Phe Phe Ser Glu Met Glu Ser Arg Ser Val Thr Arg Leu Glu Cys 10 Ser Gly Ala Ile Ser Ala His Leu Arg Leu Leu Gly Ser Ser Asn Ser 20 25 30 Pro Ala Ser Ala Ser Xaa Val Ala Gly Thr Ile Gly Ala Cys His His 40 Ala Gln Leu Ile Phe Val Phe Leu Val Glu Thr Gly Phe His His Val 55 60 Gly Gln Asp Gly Leu Asp Leu Leu Asn Leu Met Ile His Pro Pro Arg 70 75 ['] Pro Pro Lys Val Leu Gly Phe Gln Ala 85

<210> 1840 <211> 3223 <212> PRT

<213> Homo sapiens

<400> 1840 Gly Cys Gln Ser Cys Trp Pro Ala Trp Pro Arg Leu Arg Arg Gly 10 Pro Ala Ser Ala Gly Ala Arg Leu Gly Arg Lys Ala Pro Trp Gly Leu 20 25 Pro Gly Arg Val Gln Asp Gly Arg Pro Leu Arg Phe Cys Phe Tyr Leu 35 40 Arg Pro Arg Ala Pro Phe Ile Ala Pro Val Leu Ser Gly Ala Ala Ser 55 Arg Pro Glu Ala Ser Gly Asp Cys Arg Ala Gly Arg Glu Thr Ala Met
65 70 75 80 Ala Thr Leu Glu Lys Leu Met Lys Ala Phe Glu Ser Leu Lys Ser Phe 90 85 100 105 Gln Gln Gln Gln Gln Gln Pro Pro Pro Pro Pro Pro Pro Pro Pro 115 120 125 Pro Pro Gln Leu Pro Gln Pro Pro Pro Gln Ala Gln Pro Leu Leu Pro 135 140 150 155 160 Val Ala Glu Glu Pro Leu His Arg Pro Lys Lys Glu Leu Ser Ala Thr 165 170 175 Lys Lys Asp Arg Val Asn His Cys Leu Thr Ile Cys Glu Asn Ile Val 180 185 Ala Gln Ser Val Arg Asn Ser Pro Glu Phe Gln Lys Leu Leu Gly Ile 195 200 205 Ala Met Glu Leu Phe Leu Leu Cys Ser Asp Asp Ala Glu Ser Asp Val 215 220 Arg Met Val Ala Asp Glu Cys Leu Asn Lys Val Ile Lys Ala Leu Met 230 235 Asp Ser Asn Leu Pro Arg Leu Gln Leu Glu Leu Tyr Lys Glu Ile Lys 250

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Lys Asn Gly Ala Pro Arg Ser Leu Arg Ala Ala Leu Trp Arg Phe Ala
          260
                            265
Glu Leu Ala His Leu Val Arg Pro Gln Lys Cys Arg Pro Tyr Leu Val
                       280
Asn Leu Leu Pro Cys Leu Thr Arg Thr Ser Lys Arg Pro Glu Glu Ser
           295
                                     300
Val Gln Glu Thr Leu Ala Ala Ala Val Pro Lys Ile Met Ala Ser Phe
                310 315
Gly Asn Phe Ala Asn Asp Asn Glu Ile Lys Val Leu Leu Lys Ala Phe
             325
                              330
Ile Ala Asn Leu Lys Ser Ser Ser Pro Thr Ile Arg Arg Thr Ala Ala
         340
                           345
                                              350
Gly Ser Ala Val Ser Ile Cys Gln His Ser Arg Arg Thr Gln Tyr Phe
                       360
                                          365
Tyr Ser Trp Leu Leu Asn Val Leu Leu Gly Leu Leu Val Pro Val Glu
          375
                                      380
Asp Glu His Ser Thr Leu Leu Ile Leu Gly Val Leu Leu Thr Leu Arg
       390 395 400
Tyr Leu Val Pro Leu Leu Gln Gln Val Lys Asp Thr Ser Leu Lys
                               410
Gly Ser Phe Gly Val Thr Arg Lys Glu Met Glu Val Ser Pro Ser Ala
         420
                           425
Glu Gln Leu Val Gln Val Tyr Glu Leu Thr Leu His His Thr Gln His
      435
                        440
                                          445
Gln Asp His Asn Val Val Thr Gly Ala Leu Glu Leu Leu Gln Gln Leu
                   455
                                       460
Phe Arg Thr Pro Pro Pro Glu Leu Leu Gln Thr Leu Thr Ala Val Gly
               470
                                  475
Gly Ile Gly Gln Leu Thr Ala Ala Lys Glu Glu Ser Gly Gly Arg Ser
           485
                               490
Arg Ser Gly Ser Ile Val Glu Leu Ile Ala Gly Gly Gly Ser Ser Cys
                           505
          500
Ser Pro Val Leu Ser Arg Lys Gln Lys Gly Lys Val Leu Leu Gly Glu
                        520
                                          525
Glu Glu Ala Leu Glu Asp Asp Ser Glu Ser Arg Ser Asp Val Ser Ser
                     535
                                       540
Ser Ala Leu Thr Ala Ser Val Lys Asp Glu Ile Ser Gly Glu Leu Ala
                          555
        550
Ala Ser Ser Gly Val Ser Thr Pro Gly Ser Ala Gly His Asp Ile Ile
             565 . 570
Thr Glu Gln Pro Arg Ser Gln His Thr Leu Gln Ala Asp Ser Val Asp
                            585
Leu Ala Ser Cys Asp Leu Thr Ser Ser Ala Thr Asp Gly Asp Glu Glu
                       600
                                          605
Asp Ile Leu Ser His Ser Ser Ser Gln Val Ser Ala Val Pro Ser Asp
          615
                                      620
Pro Ala Met Asp Leu Asn Asp Gly Thr Gln Ala Ser Ser Pro Ile Ser
                 630
                                   635
Asp Ser Ser Gln Thr Thr Glu Gly Pro Asp Ser Ala Val Thr Pro
             645
                               650
Ser Asp Ser Ser Glu Ile Val Leu Asp Gly Thr Asp Asn Gln Tyr Leu
          660
                           665
Gly Leu Gln Ile Gly Gln Pro Gln Asp Glu Asp Glu Glu Ala Thr Gly
                        680
                                          685
Ile Leu Pro Asp Glu Ala Ser Glu Ala Phe Arg Asn Ser Ser Met Ala
                    695
                                       700
Leu Gln Gln Ala His Leu Leu Lys Asn Met Ser His Cys Arg Gln Pro
                                   715
                 710
Ser Asp Ser Ser Val Asp Lys Phe Val Leu Arg Asp Glu Ala Thr Glu
             725
                                730
Pro Gly Asp Gln Glu Asn Lys Pro Cys Arg Ile Lys Gly Asp Ile Gly
                           745
Gln Ser Thr Asp Asp Ser Ala Pro Leu Val His Cys Val Arg Leu
                         760
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Leu Ser Ala Ser Phe Leu Leu Thr Gly Gly Lys Asn Val Leu Val Pro 775 Asp Arg Asp Val Arg Val Ser Val Lys Ala Leu Ala Leu Ser Cys Val 790 795 Gly Ala Ala Val Ala Leu His Pro Glu Ser Phe Phe Ser Lys Leu Tyr 805 810 815 Lys Val Pro Leu Asp Thr Thr Glu Tyr Pro Glu Glu Gln Tyr Val Ser 820 825 Asp Ile Leu Asn Tyr Ile Asp His Gly Asp Pro Gln Val Arg Gly Ala 835 840 845 Thr Ala Ile Leu Cys Gly Thr Leu Ile Cys Ser Ile Leu Ser Arg Ser 855 860 Arg Phe His Val Gly Asp Trp Met Gly Thr Ile Arg Thr Leu Thr Gly 865 870 875 Asn Thr Phe Ser Leu Ala Asp Cys Ile Pro Leu Leu Arg Lys Thr Leu 885 890 Lys Asp Glu Ser Ser Val Thr Cys Lys Leu Ala Cys Thr Ala Val Arg 900 905 910 Asn Cys Val Met Ser Leu Cys Ser Ser Ser Tyr Ser Glu Leu Gly Leu 915 920 925 Gln Leu Ile Ile Asp Val Leu Thr Leu Arg Asn Ser Ser Tyr Trp Leu 935 940 Val Arg Thr Glu Leu Leu Glu Thr Leu Ala Glu Ile Asp Phe Arg Leu 950 955 Val Ser Phe Leu Glu Ala Lys Ala Glu Asn Leu His Arg Gly Ala His 965 970 His Tyr Thr Gly Leu Leu Lys Leu Gln Glu Arg Val Leu Asn Asn Val 980 985 990 Val Ile His Leu Leu Gly Asp Glu Asp Pro Arg Val Arg His Val Ala 995 1000 1005 Ala Ala Ser Leu Ile Arg Leu Val Pro Lys Leu Phe Tyr Lys Cys Asp 1015 1020 Gln Gly Gln Ala Asp Pro Val Val Ala Val Ala Arg Asp Gln Ser Ser 1030 1035 Val Tyr Leu Lys Leu Leu Met His Glu Thr Gln Pro Pro Ser His Phe 1045 1050 1055 Ser Val Ser Thr Ile Thr Arg Ile Tyr Arg Gly Tyr Asn Leu Leu Pro 1060 1065 1070 Ser Ile Thr Asp Val Thr Met Glu Asn Asn Leu Ser Arg Val Ile Ala 1085 1075 1080 Ala Val Ser His Glu Leu Ile Thr Ser Thr Thr Arg Ala Leu Thr Phe 1095 1100 Gly Cys Cys Glu Ala Leu Cys Leu Leu Ser Thr Ala Phe Pro Val Cys 1110 1115 1120 1105 Ile Trp Ser Leu Gly Trp His Cys Gly Val Pro Pro Leu Ser Ala Ser 1125 1130 1135 Asp Glu Ser Arg Lys Ser Cys Thr Val Gly Met Ala Thr Met Ile Leu 1140 1145 Thr Leu Leu Ser Ser Ala Trp Phe Pro Leu Asp Leu Ser Ala His Gln 1155 1160 1165 Asp Ala Leu Ile Leu Ala Gly Asn Leu Leu Ala Ala Ser Ala Pro Lys . 1170 1175 1180 Ser Leu Arg Ser Ser Trp Ala Ser Glu Glu Glu Ala Asn Pro Ala Ala 1190 1195 1200 Thr Lys Gln Glu Glu Val Trp Pro Ala Leu Gly Asp Arg Ala Leu Val 1205 1210 Pro Met Val Glu Gln Leu Phe Ser His Leu Leu Lys Val Ile Asn Ile 1220 1225 1230 Cys Ala His Val Leu Asp Asp Val Ala Pro Gly Pro Ala Ile Lys Ala 1235 1240 1245 Ala Leu Pro Ser Leu Thr Asn Pro Pro Ser Leu Ser Pro Ile Arg Arg 1250 1255 1260 Lys Gly Lys Glu Lys Glu Pro Gly Glu Gln Ala Ser Val Pro Leu Ser 1275

Pro Lys Lys Gly Ser Glu Ala Ser Ala Ala Ser Arg Gln Ser Asp Thr 1290 Ser Gly Pro Val Thr Thr Ser Lys Ser Ser Ser Leu Gly Ser Phe Tyr 1300 1305 1310 His Leu Pro Ser Tyr Leu Lys Leu His Asp Val Leu Lys Ala Thr His 1315 1320 1325 Ala Asn Tyr Lys Val Thr Leu Asp Leu Gln Asn Ser Thr Glu Lys Phe 1340 1335 Gly Gly Phe Leu Arg Ser Ala Leu Asp Val Leu Ser Gln Ile Leu Glu 1345 1350 1355 Leu Ala Thr Leu Gln Asp Ile Gly Lys Cys Val Glu Glu Ile Leu Gly 1365 1370 1375 Tyr Leu Lys Ser Cys Phe Ser Arg Glu Pro Met Met Ala Thr Val Cys 1380 1385 1390 Val Gln Gln Leu Leu Lys Thr Leu Phe Gly Thr Asn Leu Ala Ser Gln 1395 1400 1405 Phe Asp Gly Leu Ser Ser Asn Pro Ser Lys Ser Gln Gly Arg Ala Gln 1415 1420 Arg Leu Gly Ser Ser Ser Val Arg Pro Gly Leu Tyr His Tyr Cys Phe 1425 1430 1435 Met Ala Pro Tyr Thr His Phe Thr Gln Ala Leu Ala Asp Ala Ser Leu 1445 1450 1455 Arg Asn Met Val Gln Ala Glu Gln Glu Asn Asp Thr Ser Gly Trp Phe 1470 1460 1465 Asp Val Leu Gln Lys Val Ser Thr Gln Leu Lys Thr Asn Leu Thr Ser 1475 1480 1485 Val Thr Lys Asn Arg Ala Asp Lys Asn Ala Ile His Asn His Ile Arg 1495 1500 Leu Phe Glu Pro Leu Val Ile Lys Ala Leu Lys Gln Tyr Thr Thr 1510 1515 1520 Thr Cys Val Gln Leu Gln Lys Gln Val Leu Asp Leu Leu Ala Gln Leu 1535 1530 1525 Val Gln Leu Arg Val Asn Tyr Cys Leu Leu Asp Ser Asp Gln Val Phe 1540 1545 1550 Ile Gly Phe Val Leu Lys Gln Phe Glu Tyr Ile Glu Val Gly Gln Phe 1555 1560 1565 Arg Glu Ser Glu Ala Ile Ile Pro Asn Ile Phe Phe Leu Val Leu 1570 1575 1580 Leu Ser Tyr Glu Arg Tyr His Ser Lys Gln Ile Ile Gly Ile Pro Lys 1590 1595 Ile Ile Gln Leu Cys Asp Gly Ile Met Ala Ser Gly Arg Lys Ala Val 1605 1610 1615 Thr His Ala Ile Pro Ala Leu Gln Pro Ile Val His Asp Leu Phe Val 1620 1625 1630 Leu Arg Gly Thr Asn Lys Ala Asp Ala Gly Lys Glu Leu Glu Thr Gln 1640 1645 1635 Lys Glu Val Val Val Ser Met Leu Leu Arg Leu Ile Gln Tyr His Gln 1655 1660 Val Leu Glu Met Phe Ile Leu Val Leu Gln Gln Cys His Lys Glu Asn 1665 1670 1675 Glu Asp Lys Trp Lys Arg Leu Ser Arg Gln Ile Ala Asp Ile Ile Leu 1685 1690 Pro Met Leu Ala Lys Gln Gln Met His Ile Asp Ser His Glu Ala Leu 1700 1705 1710 Gly Val Leu Asn Thr Leu Phe Glu Ile Leu Ala Pro Ser Ser Leu Arg 1715 1720 1725 Pro Val Asp Met Leu Leu Arg Ser Met Phe Val Thr Pro Asn Thr Met 1735 1740 Ala Ser Val Ser Thr Val Gln Leu Trp Ile Ser Gly Ile Leu Ala Ile 1750 1755 1745 Leu Arg Val Leu Ile Ser Gln Ser Thr Glu Asp Ile Val Leu Ser Arg 1765 1770 Ile Gln Glu Leu Ser Phe Ser Pro Tyr Leu Ile Ser Cys Thr Val Ile 1785

Asn Arg Leu Arg Asp Gly Asp Ser Thr Ser Thr Leu Glu Glu His Ser 1795 1800 Glu Gly Lys Gln Ile Lys Asn Leu Pro Glu Glu Thr Phe Ser Arg Phe 1810 1815 1820 Leu Leu Gln Leu Val Gly Ile Leu Leu Glu Asp Ile Val Thr Lys Gln 1830 1835 Leu Lys Val Glu Met Ser Glu Gln Gln His Thr Phe Tyr Cys Gln Glu 1850 1855 1845 Leu Gly Thr Leu Leu Met Cys Leu Ile His Ile Phe Lys Ser Gly Met 1860 1865 1870 Phe Arg Arg Ile Thr Ala Ala Ala Thr Arg Leu Phe Arg Ser Asp Gly 1875 1880 1885 Cys Gly Gly Ser Phe Tyr Thr Leu Asp Ser Leu Asm Leu Arg Ala Arg 1890 1895 1900 Ser Met Ile Thr Thr His Pro Ala Leu Val Leu Leu Trp Cys Gln Ile 1910 1915 1920 Leu Leu Leu Val Asn His Thr Asp Tyr Arg Trp Trp Ala Glu Val Gln 1935 1925 1930 Gln Thr Pro Lys Arg His Ser Leu Ser Ser Thr Lys Leu Leu Ser Pro 1940 1945 1950 Gln Met Ser Gly Glu Glu Glu Asp Ser Asp Leu Ala Ala Lys Leu Gly 1955 1960 1965 Met Cys Asn Arg Glu Ile Val Arg Arg Gly Ala Leu Ile Leu Phe Cys 1970 1975 1980 Asp Tyr Val Cys Gln Asn Leu His Asp Ser Glu His Leu Thr Trp Leu 1990 1985 1995 Ile Val Asn His Ile Gln Asp Leu Ile Ser Leu Ser His Glu Pro Pro 2005 2010 2015 Val Gln Asp Phe Ile Ser Ala Val His Arg Asn Ser Ala Ala Ser Gly 2020 2025 2030 Leu Phe Ile Gln Ala Ile Gln Ser Arg Cys Glu Asn Leu Ser Thr Pro 2035 2040 2045 Thr Met Leu Lys Lys Thr Leu Gln Cys Leu Glu Gly Ile His Leu Ser 2050 2055 2060 Gln Ser Gly Ala Val Leu Thr Leu Tyr Val Asp Arg Leu Leu Cys Thr 2070 2075 Pro Phe Arg Val Leu Ala Arg Met Val Asp Ile Leu Ala Cys Arg Arg 2085 2090 2095 Val Glu Met Leu Leu Ala Ala Asn Leu Gln Ser Ser Met Ala Gln Leu 2100 2105 2110 Pro Met Glu Glu Leu Asn Arg Ile Gln Glu Tyr Leu Gln Ser Ser Gly 2115 2120 2125 Leu Ala Gln Arg His Gln Arg Leu Tyr Ser Leu Leu Asp Arg Phe Arg 2130 2135 2140 Leu Ser Thr Met Gln Asp Ser Leu Ser Pro Ser Pro Pro Val Ser Ser 2155 2150 His Pro Leu Asp Gly Asp Gly His Val Ser Leu Glu Thr Val Ser Pro 2170 2175 2165 Asp Lys Asp Trp Tyr Val His Leu Val Lys Ser Gln Cys Trp Thr Arg 2180 2185 2190 Ser Asp Ser Ala Leu Leu Glu Gly Ala Glu Leu Val Asn Arg Ile Pro 2195 2200 2205 Ala Glu Asp Met Asn Ala Phe Met Met Asn Ser Glu Phe Asn Leu Ser 2210 2215 2220 Leu Leu Ala Pro Cys Leu Ser Leu Gly Met Ser Glu Ile Ser Gly Gly 2230 2235 Gln Lys Ser Ala Leu Phe Glu Ala Ala Arg Glu Val Thr Leu Ala Arg 2255 2245 2250 Val Ser Gly Thr Val Gln Gln Leu Pro Ala Val His His Val Phe Gln 2260 2265 2270 Pro Glu Leu Pro Ala Glu Pro Ala Ala Tyr Trp Ser Lys Leu Asn Asp 2280 2285 2275 Leu Phe Gly Asp Ala Ala Leu Tyr Gln Ser Leu Pro Thr Leu Ala Arg 2295 2300

Ala Leu Ala Gln Tyr Leu Val Val Val Ser Lys Leu Pro Ser His Leu 2315 2310 2305 His Leu Pro Pro Glu Lys Glu Lys Asp Ile Val Lys Phe Val Val Ala 2325 2330 2335 Thr Leu Glu Ala Leu Ser Trp His Leu Ile His Glu Gln Ile Pro Leu 2345 2350 2340 Ser Leu Asp Leu Gln Ala Gly Leu Asp Cys Cys Cys Leu Ala Leu Gln 2355 2360 2365 Leu Pro Gly Leu Trp Ser Val Val Ser Ser Thr Glu Phe Val Thr His 2380 2375 Ala Cys Ser Leu Ile Tyr Cys Val His Phe Ile Leu Glu Ala Val Ala 2390 2395 Val Gln Pro Gly Glu Gln Leu Leu Ser Pro Glu Arg Arg Thr Asn Thr 2405 2410 2415 Pro Lys Ala Ile Ser Glu Glu Glu Glu Glu Val Asp Pro Asn Thr Gln 2425 2430 2420 Asn Pro Lys Tyr Ile Thr Ala Ala Cys Glu Met Val Ala Glu Met Val 2435 2440 2445 Glu Ser Leu Gln Ser Val Leu Ala Leu Gly His Lys Arg Asn Ser Gly 2450 2455 2460 Val Pro Ala Phe Leu Thr Pro Leu Leu Arg Asn Ile Ile Ser Leu 2470 2475 Ala Arg Leu Pro Leu Val Asn Ser Tyr Thr Arg Val Pro Pro Leu Val 2485 2490 Trp Lys Leu Gly Trp Ser Pro Lys Pro Gly Gly Asp Phe Gly Thr Ala 2500 2510 2505 Phe Pro Glu Ile Pro Val Glu Phe Leu Gln Glu Lys Glu Val Phe Lys 2515 2520 2525 Glu Phe Ile Tyr Arg Ile Asn Thr Leu Gly Trp Thr Ser Arg Thr Gln 2535 2540 Phe Glu Glu Thr Trp Ala Thr Leu Leu Gly Val Leu Val Thr Gln Pro 2545 2550 2555 Leu Val Met Glu Glu Glu Glu Ser Pro Pro Glu Glu Asp Thr Glu Arg 2565 2570 2575 Thr Gln Ile Asn Val Leu Ala Val Gln Ala Ile Thr Ser Leu Val Leu 2580 2585 2590 Ser Ala Met Thr Val Pro Val Ala Gly Asn Pro Ala Val Ser Cys Leu 2595 2600 2605 Glu Gln Gln Pro Arg Asn Lys Pro Leu Lys Ala Leu Asp Thr Arg Phe 2610 2615 2620 Gly Arg Lys Leu Ser Ile Ile Arg Gly Ile Val Glu Glu Glu Ile Gln 2630 2635 2640 Ala Met Val Ser Lys Arg Glu Asn Ile Ala Thr His His Leu Tyr Gln 2645 2650 2655 Ala Trp Asp Pro Val Pro Ser Leu Ser Pro Ala Thr Thr Gly Ala Leu 2660 2665 2670 Ile Ser His Glu Lys Leu Leu Leu Gln Ile Asn Pro Glu Arg Glu Leu 2675 2680 2685 Gly Ser Met Ser Tyr Lys Leu Gly Gln Val Ser Ile His Ser Val Trp 2695 2700 Leu Gly Asn Ser Ile Thr Pro Leu Arg Glu Glu Glu Trp Asp Glu Glu 2710 2715 Glu Glu Glu Glu Ala Asp Ala Pro Ala Pro Ser Ser Pro Pro Thr Ser 2725 2730 2735 Pro Val Asn Ser Arg Lys His Arg Ala Gly Val Asp Ile His Ser Cys 2750 2745 2740 Ser Gln Phe Leu Leu Glu Leu Tyr Ser Arg Trp Ile Leu Pro Ser Ser 2755 2760 2765 Ser Ala Arg Arg Thr Pro Ala Ile Leu Ile Ser Glu Val Val Arg Ser 2770 2775 2780 Leu Leu Val Val Ser Asp Leu Phe Thr Glu Arg Asn Gln Phe Glu Leu 2795 2790 Met Tyr Val Thr Leu Thr Glu Leu Arg Arg Val His Pro Ser Glu Asp 2805 2810

Glu Ile Leu Ala Gln Tyr Leu Val Pro Ala Thr Cys Lys Ala Ala Ala 2820 2825 2830 Val Leu Gly Met Asp Lys Ala Val Ala Glu Pro Val Ser Arg Leu Leu 2835 2840 2845 Glu Ser Thr Leu Arg Ser Ser His Leu Pro Ser Arg Val Gly Ala Leu 2850 2855 2860 His Gly Val Leu Tyr Val Leu Glu Cys Asp Leu Leu Asp Asp Thr Ala 2870 2875 Lys Gln Leu Ile Pro Val Ile Ser Asp Tyr Leu Leu Ser Asn Leu Lys 2890 2895 2885 Gly Ile Ala His Cys Val Asn Ile His Ser Gln Gln His Val Leu Val 2900 2905 2910 Met Cys Ala Thr Ala Phe Tyr Leu Ile Glu Asn Tyr Pro Leu Asp Val 2915 2920 2925 Gly Pro Glu Phe Ser Ala Ser Ile Ile Gln Met Cys Gly Val Met Leu 2940 Ser Gly Ser Glu Glu Ser Thr Pro Ser Ile Ile Tyr His Cys Ala Leu 2950 2955 2960 Arg Gly Leu Glu Arg Leu Leu Leu Ser Glu Gln Leu Ser Arg Leu Asp 2965 2970 2975 Ala Glu Ser Leu Val Lys Leu Ser Val Asp Arg Val Asn Val His Ser 2980 2985 2990 Pro His Arg Ala Met Ala Ala Leu Gly Leu Met Leu Thr Cys Met Tyr
2995 3000 3005 Thr Gly Lys Glu Lys Val Ser Pro Gly Arg Thr Ser Asp Pro Asn Pro 3010 3015 3020 Ala Ala Pro Asp Ser Glu Ser Val Ile Val Ala Met Glu Arg Val Ser 3025 3030 3035 Val Leu Phe Asp Arg Ile Arg Lys Gly Phe Pro Cys Glu Ala Arg Val 3045 3050 3055 Val Ala Arg Ile Leu Pro Gln Phe Leu Asp Asp Phe Phe Pro Pro Gln 3060 3065 3070 Asp Ile Met Asn Lys Val Ile Gly Glu Phe Leu Ser Asn Gln Gln Pro 3075 3080 3085 Tyr Pro Gln Phe Met Ala Thr Val Val Tyr Lys Val Phe Gln Thr Leu 3090 3095 3100 His Ser Thr Gly Gln Ser Ser Met Val Arg Asp Trp Val Met Leu Ser 3105 3110 3115 Leu Ser Asn Phe Thr Gln Arg Ala Pro Val Ala Met Ala Thr Trp Ser 3125 3130 3135 Leu Ser Cys Phe Phe Val Ser Ala Ser Thr Ser Pro Trp Val Ala Ala 3140 3145 3150 Ile Leu Pro His Val Ile Ser Arg Met Gly Lys Leu Glu Gln Val Asp 3155 3160 3165 Val Asn Leu Phe Cys Leu Val Ala Thr Asp Phe Tyr Arg His Gln Ile 3170 3175 3180 Glu Glu Glu Leu Asp Arg Arg Ala Phe Gln Ser Val Leu Glu Val Val , 3185 3190 3195 3200 Ala Ala Pro Gly Ser Pro Tyr His Arg Leu Leu Thr Cys Leu Arg Asn 3205 3210 3215 Val His Lys Val Thr Thr Cys 3223 3220

> <210> 1841 <211> 56 <212> PRT <213> Homo sapiens

<400> 1841
Ser Asn Pro Pro Ala Ser Ala Ser Arg Val Ala Gly Ile Thr Gly Val
1 5 10 15

<210> 1842
<211> 104
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(101)
<223> Xaa = any amino acid or nothing

<400> 1842 Val Ala Pro Ser Pro Met Ile Met Pro Asp Leu Tyr Phe Tyr Arg Asp 10 Pro Glu Glu Ile Glu Lys Glu Glu Xaa Ala Ala Ala Glu Lys Glu Glu 20 25 Phe Gln Ser Glu Trp Thr Ala Val Val Pro Glu Phe Thr Ala Thr Gln 40 35 Ser Glu Val Ala Asp Trp Phe Lys Asp Met Gln Val Pro Ser Val Pro 55 60 Ile Gln Gln Phe Pro Thr Glu Asp Trp Ser Thr Xaa Pro Thr Met Asn 70 75 Asp Trp Ser Ala Thr Ser Thr Ala Gln Thr Thr Glu Trp Val Arg Ile 90 85 Thr Thr Glu Trp Pro 100 101

<210> 1843 <211> 121 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(119) <223> Xaa = any amino acid or nothing

<400> 1843 Thr Pro Ser Asp Met Asn Arg Ala Phe Glu Thr Asp Thr Gln Ser Ile 5 10 Gly Glu Lys Asn Arg Ser Pro Ser Glu Pro Asp Tyr Phe Glu Arg Lys 25 Lys Phe Lys Arg Ser Xaa Glu Lys Ala His Ile Arg Tyr Lys Ile Asp 40 35 Gln Pro Glu Asp Ile Pro Leu Lys Glu Phe Leu Cys Lys His Ser Lys 55 Cys Thr Ala Thr Leu Ser Met Arg Asn Met Ser Leu Met Lys Lys 75 Cys Ser Phe Ser Glu Glu Phe Leu Ala Phe Phe Pro Ser Leu Leu Val 90 85 Cys His Leu Leu Ala Ile Lys Leu Gly Phe Tyr Ile Glu Ile His Leu 100 105 Thr Thr Phe Asn Asn Thr Phe

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<210> 1844
<211> 120
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(116)
<223> Xaa = any amino acid or nothing
<400> 1844
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Phe Phe Phe Leu Arg Arg Ser Leu Asp Ser Val Ala Gln Ala Glu Ala 10 1 5 Gln Trp Leu Glu Leu Gly Leu Leu Gln Ala Pro Pro Pro Gly Phe Lys 25 20 Pro Ile Ser Leu Pro Gly Leu Pro Ser Ser Trp Asp Tyr Gly Arg Pro 40 Pro Pro Cys Pro Ala Asn Phe Cys Ile Phe Met Xaa Arg Arg Gly Phe 60 50 55 Thr Val Leu Ala Arg Met Val Leu Ile Ser Xaa Pro Cys Asp Pro Pro 70 65 Thr Leu Ala Ser Gln Gly Thr Ala Ile Thr Gly Met Ser Tyr His Ala 90 85 Arg Pro Gln Asp Ile Asp Phe Leu Tyr Ala His Gln Gly Arg Cys Trp 105 100 Phe Arg Leu Leu 115 116

<210> 1845 <211> 581 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(575) <223> Xaa = any amino acid or nothing

<400> 1845 Asp Ile Phe Phe Arg Arg Ala Lys Glu Gly Met Gly Gln Asp Glu Ala 1 5 10 Gln Phe Ser Val Glu Met Pro Leu Thr Gly Lys Ala Tyr Leu Trp Ala 25 20 Asp Lys Tyr Arg Pro Arg Lys Pro Arg Phe Phe Asn Arg Val His Thr 40 45 35 Gly Phe Glu Trp Asn Lys Tyr Asn Gln Thr His Tyr Asp Phe Asp Asn 55 60 Pro Pro Pro Lys Ile Val Gln Gly Tyr Lys Phe Asn Ile Phe Tyr Pro 75 70 Asp Leu Ile Asp Lys Arg Ser Thr Pro Glu Tyr Phe Leu Glu Ala Cys 85 90 Ala Asp Asn Lys Asp Phe Ala Ile Leu Arg Phe His Ala Gly Pro Pro 105 110 100 Tyr Glu Asp Ile Ala Phe Lys Ile Val Asn Arg Glu Trp Glu Tyr Ser 125 120 His Arg His Gly Phe Arg Cys Gln Phe Ala Asn Gly Ile Phe Gln Leu 135 140 130 Trp Phe His Phe Lys Arg Tyr Arg Tyr Arg Arg Xaa Arg Pro Trp Gly 150 155

```
Thr Ala Gly Arg Cys Pro Arg Gly His Ser Lys Gly Ala Ser Val Lys
              165
                                  170
Leu Val Val Thr Pro Gly Pro Leu Ser Gly Leu Gln Gly Arg Gly Phe
           180
                              185
                                                 190
Thr Ser His Leu Arg Pro His Leu Ser Phe Ala Arg Pro Gln Phe Pro
                                             205
       195
                         200
Pro Ile Xaa Lys Gly Gly His His Xaa Ala Cys His Gly Glu Leu Arg
                       215
                                         220
Arg His Trp Asp Arg Leu Ala Xaa Gly Pro Asp Ala Thr Glu Gly Ala
                  230
                                      235
Leu Gly Ala Ser Phe Glu His Glu Gly Gly Gln Gln Pro Pro Ala Asp
              245
                                 250
Leu Thr Val Gln Ala Asp Thr Leu His Arg Pro Ser Ala Arg Leu Gly
                                       270
                       265
Gly Ala His Arg Ala Cys Pro Lys Arg Arg Pro His Arg Val Leu Trp
                         280
       275
Arg Trp Ala Arg Gly Ala Trp Ala Trp Arg Cys Gln Ala Arg Glu Lys
                                         300
                    295
Gln Glu Thr Gln Gly Gln Pro Cys His Ile Thr Gly His Pro Leu Gly
                  310
                                     315
Arg Glu Ala Glu Pro Ala Ala Ala Gly Ala Ala Pro Ala Leu Ala His
               325
                                  330
Arg Pro Pro Phe Ala Arg Thr Gly Ser Thr Glu Pro Gly Pro Cys Trp
                                                 350
                              345
           340
Arg Pro Ile Arg His Cys Arg Arg Asp Pro Leu Trp Thr Pro Thr Leu
                          360
Cys Arg Asp Trp Pro Pro Thr His Pro Val Leu Ala Gly Gly Val His
                                         380
                       375
Phe Pro Ala Ala Gly Ile Gly Gly Cys Val Glu Val Pro Val Ser Val
                                      395
                  390
Asn Val Met Gly Thr Lys Ser His Xaa Ala Val Leu Pro Pro Pro Pro
               405
                                410
Ser Thr Gly Pro Gly Gly Gln Gly Leu Pro Glu Gly Trp Gly Leu Glu
                                                 430
           420
                              425
Lys Gly Glu Gly Leu Pro Pro Gly Ile Pro Pro Pro Gly Leu Leu Thr
                 440
                                            445
Gly Pro Trp Ser Met Arg Pro Val Thr Pro Ser Phe Ala His Ile Arg
                      455
                                          460
Thr Val Ala Pro Ser His Ser Pro Phe Ser Gly Gln Glu Gly Arg Gly
                                    475
                 470
Pro His Gly Cys His Ser Pro Gly Arg Ser Gly Pro Ala Gly Arg Leu
               485
                                 490
                                                     495
Val Leu Gln His Pro Thr Gly Thr Ser Pro Thr Glu Ala Lys Arg Lys
                              505
           500
. Val Pro Pro Gly Pro Pro Glu Gly His Pro Thr Ser Pro Val Thr Ser
                         520
                                             525
       515
Pro Arg Pro Pro Thr Ala Pro Pro Arg His Pro Ala Ser Ser Gly Asn
                                        540
                      535
Ser Ser Val Cys Phe Ser Lys Lys Thr Cys Arg Trp Glu Lys Lys Ser
                  550
                                     555
Phe Val Leu Met Glu Leu Ala Tyr Trp Gln Asp Arg Met Phe Phe
               565
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<210> 1846
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<211> 130

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(129)

<223> Xaa = any amino acid or nothing

<400> 1846 Ala Lys Ser Pro Leu Pro Leu Gly Kaa Ile Gln Trp Arg Asn Leu Gly 5 10 Ser Leu Lys Leu Arg Leu Pro Gly Phe Lys Xaa Phe Thr Cys Leu Gly 20 25 Leu Leu Ser Ser Trp Asp Tyr Arg Ser Leu Pro Pro Arg Pro Val Asn 35 40 Phe Cys Ile Leu Val Glu Leu Gly Phe His His Val Asp Gln Ala Gly 55 60 Leu Lys Leu Leu Thr Ser Ser Ala Leu Pro Ala Leu Ala Ser Gln Ser 75 70 Ala Glu Ile Thr Gly Met Ser His Arg Ile Trp Pro Leu Pro Leu Leu 90 85 Arg Arg Pro Pro Val Ile Arg Ile Arg Ala Pro Pro Gln Arg Leu Pro 100 105 110 Phe Asn Leu Ile Thr Ser Leu Lys Ala Leu Ser Pro Asn Met Ala Thr 120 Phe 129

<210> 1847 <211> 132 <212> PRT <213> Homo sapiens

<400> 1847 Ala Leu Arg Lys Thr Arg Arg Asp Gly Ile Ala Arg Thr Gly Ala Gln Pro Ala Ala Ser Trp Lys Gly Thr Asn Asn Tyr Pro Trp Arg Leu Glu 25 20 Met Ala Gly Arg Pro Gly Ser Gln Glu Gln Ser Lys Asp Arg Gly Thr 35 40 Gly Ser Leu Pro Pro Pro Ser Gln Arg Pro Leu Gly Pro Ser Pro Glu 55 60 50 Gly Ala Gly Pro Ser Pro Pro Pro Gly Ile Pro Arg Gly Gly Gly 70 75 Ser Ser Ser Ser Glu Gly Pro Pro Gln Leu Leu Phe Val Pro Arg Arg Phe Pro Alà Pro Lys Lys Gly Leu Pro Ser Asp Thr Pro His Ser Lys 100 105 Ala Pro Pro Thr Pro His Leu Ile Leu Gly Gly Glu Asp Ser Gln Val 120 115 Pro Ile Leu 130 131

<210> 1848
<211> 128
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(126)
<223> Xaa = any amino acid or nothing

<400> 1848
Lys Asn Ala Ser Thr Val Tyr Ser Ser Gln Gly Asp Pro Lys Ser Phe
1 5 10 15

Phe Phe Leu Leu Arg Trp Ser Leu Ala Leu Val Ala Gln Ala Gly Glu 25 20 Gln Xaa Arg Asp Leu Ser Ser Leu Gln Pro Pro Pro Pro Gly Phe Lys 40 45 35 Xaa Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Pro 60 55 Leu Pro Cys Leu Ala Asn Phe Xaa Phe Leu Val Glu Thr Gly Phe His 70 75 His Val Gly Gln Ala Asp Leu Lys Leu Leu Thr Ser Gly Asp Pro Pro 85 . 90 Thr Ser Ala Ser Glu Ser Ala Gly Ile Thr Gly Val Ser His Arg Ala 100 105 Trp Pro Arg Ile His Phe Leu Tyr Trp Lys Thr Phe Phe Leu 120

<210> 1849
<211> 177
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(174)
<223> Xaa = any amino acid or nothing

<400> 1849 Ala Pro Ser Gln Ile Ser Val Ala Phe Leu Tyr Ala Ala Asp Lys Leu 5 10 Phe Glu Lys Glu Ile Xaa Lys Lys Ile Pro Phe Ile Ile Ala Ser Asp 25 20 Lys Ile Lys Ile Gly Ile Asn Leu Thr Lys Glu Val Lys Tyr Leu Tyr 35 40 Thr Glu Asn Tyr Ile Thr Leu Met Lys Glu Ile Lys Asp Thr Asp Lys 60 Trp Lys Asp Ile Leu Tyr Xaa Trp Ile Gly Lys Ile Asm Ile Xaa Lys
65 70 75 80 70 75 Met Ser Thr Pro Pro Lys Ala Ile Tyr Arg Phe Asn Ala Ile Pro Thr 90 85 Lys Ile Pro Met Thr Phe Phe Thr Glu Ile Glu Lys Ser Ile Ile Lys 100 105 110 Phe Ile Trp Asn His Lys Lys Pro Pro Asn Thr Gln Ser Asn Ile Glu 120 125 115 Gln Lys Glu Xaa Ser Phe Cys Ser Ile Leu Leu Trp Val Phe Gly Gly · 135 140 Phe Leu Trp Phe His Met Asn Phe Met Ile Asp Phe Ser Ile Ser Val 150 155 Lys Asn Val Ile Gly Ile Leu Val Gly Ile Ala Leu Asn Leu 165 170

<210> 1850 <211> 5081 <212> PRT <213> Homo sapiéns

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Asp Leu Arg Pro Trp Ala Ser Asp Leu Asp Ile Met Gly Asp Ala Glu
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Gly Glu Asp Glu Val Gln Phe Leu Arg Thr Asp Asp Glu Val Val Leu
                      55
Gln Cys Ser Ala Thr Val Leu Lys Glu Gln Leu Lys Leu Cys Leu Ala
                                     75
Ala Glu Gly Phe Gly Asn Arg Leu Cys Phe Leu Glu Pro Thr Ser Asn
                                  90
               85
Ala Gln Asn Val Pro Pro Asp Leu Ala Ile Cys Cys Phe Val Leu Glu
                                               110
                           105
          100
Gln Ser Leu Ser Val Arg Ala Leu Gln Glu Met Leu Ala Asn Thr Val
                                           125
                        120
Glu Ala Gly Val Glu Ser Ser Gln Gly Gly Gly His Arg Thr Leu Leu
                     135
                                        140
Tyr Gly His Ala Ile Leu Leu Arg His Ala His Ser Arg Met Tyr Leu
                                    155
145
                 150
Ser Cys Leu Thr Thr Ser Arg Ser Met Thr Asp Lys Leu Ala Phe Asp
                                170
                                                    175
             165
Val Gly Leu Gln Glu Asp Ala Thr Gly Glu Ala Cys Trp Trp Thr Met
                            185
                                                190
          180
His Pro Ala Ser Lys Gln Arg Ser Glu Gly Glu Lys Val Arg Val Gly
                       200
                                    205
Asp Asp Ile Ile Leu Val Ser Val Ser Ser Glu Arg Tyr Leu His Leu
                     215
                                        220
Ser Thr Ala Ser Gly Glu Leu Gln Val Asp Ala Ser Phe Met Gln Thr
                 230 235
Leu Trp Asn Met Asn Pro Ile Cys Ser Arg Cys Glu Glu Gly Phe Val
                                                    255
              245
                                250
Thr Gly Gly His Val Leu Arg Leu Phe His Gly His Met Asp Glu Cys
                             265
                                                270
Leu Thr Ile Ser Pro Ala Asp Ser Asp Asp Gln Arg Arg Leu Val Tyr
                         280
                                           285
Tyr Glu Gly Gly Ala Val Cys Thr His Ala Arg Ser Leu Trp Arg Leu
                     295
                                         300
Glu Pro Leu Arg Ile Ser Trp Ser Gly Ser His Leu Arg Trp Gly Gln
                                    315
                310
Pro Leu Arg Val Arg His Val Thr Thr Gly Gln Tyr Leu Ala Leu Thr
                                330
              325
Glu Asp Gln Gly Leu Val Val Val Asp Ala Ser Lys Ala His Thr Lys
           340
                             345
Ala Thr Ser Phe Cys Phe Arg Ile Ser Lys Glu Lys Leu Asp Val Ala
                         360
Pro Lys Arg Asp Val Glu Gly Met Gly Pro Pro Glu Ile Lys Tyr Gly
                      375
Glu Ser Leu Cys Phe Val Gln His Val Ala Ser Gly Leu Trp Leu Thr
                 390
                                    395
Tyr Ala Ala Pro Asp Pro Lys Ala Leu Arg Leu Gly Val Leu Lys Lys
               405
                                 410
Lys Ala Met Leu His Gln Glu Gly His Met Asp Asp Ala Leu Ser Leu
           420
                              425
                                                430
Thr Arg Cys Gln Gln Glu Glu Ser Gln Ala Ala Arg Met Ile His Ser
                         440
      435
Thr Asn Gly Leu Tyr Asn Gln Phe Ile Lys Ser Leu Asp Ser Phe Ser
           455
                                       460
Gly Lys Pro Arg Gly Ser Gly Pro Pro Ala Gly Thr Ala Leu Pro Ile
                           475
                   470
Glu Gly Val Ile Leu Ser Leu Gln Asp Leu Ile Ile Tyr Phe Glu Pro
                                 490
Pro Ser Glu Asp Leu Gln His Glu Glu Lys Gln Ser Lys Leu Arg Ser
                             505
          500
Leu Arg Asn Arg Gln Ser Leu Phe Gln Glu Glu Gly Met Leu Ser Met
                       520
                                           525
Val Leu Asn Cys Ile Asp Arg Leu Asn Val Tyr Thr Thr Ala Ala His
                      535
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Phe Ala Glu Phe Ala Gly Glu Glu Ala Ala Glu Ser Trp Lys Glu Ile Val Asn Leu Leu Tyr Glu Leu Leu Ala Ser Leu Ile Arg Gly Asn Arg Ser Asn Cys Ala Leu Phe Ser Thr Asn Leu Asp Trp Leu Val Ser Lys Leu Asp Arg Leu Glu Ala Ser Ser Gly Ile Leu Glu Val Leu Tyr Cys Val Leu Ile Glu Ser Pro Glu Val Leu Asn Ile Ile Gln Glu Asn His Ile Lys Ser Ile Ile Ser Leu Leu Asp Lys His Gly Arg Asn His Lys Val Leu Asp Val Leu Cys Ser Leu Cys Val Cys Asn Gly Val Ala Val Arg Ser Asn Gln Asp Leu Ile Thr Glu Asn Leu Leu Pro Gly Arg Glu Leu Leu Leu Gln Thr Asn Leu Ile Asn Tyr Val Thr Ser Ile Arg Pro Asn Ile Phe Val Gly Arg Ala Glu Gly Thr Thr Gln Tyr Ser Lys Trp Tyr Phe Glu Val Met Val Asp Glu Val Thr Pro Phe Leu Thr Ala Gln Ala Thr His Leu Arg Val Gly Trp Ala Leu Thr Glu Gly Tyr Thr Pro Tyr Pro Gly Ala Gly Glu Gly Trp Gly Gly Asn Gly Val Gly Asp Asp Leu Tyr Ser Tyr Gly Phe Asp Gly Leu His Leu Trp Thr Gly His Val Ala Arg Pro Val Thr Ser Pro Gly Gln His Leu Leu Ala Pro Glu Asp Val Ile Ser Cys Cys Leu Asp Leu Ser Val Pro Ser Ile Ser Phe Arg Ile Asn Gly Cys Pro Val Gln Gly Val Phe Glu Ser Phe Asn Leu Asp Gly Leu Phe Phe Pro Val Val Ser Phe Ser Ala Gly Val Lys Val Arg Phe Leu Leu Gly Gly Arg His Gly Glu Phe Lys Phe Leu Pro Pro Pro Gly Tyr Ala Pro Cys His Glu Ala Val Leu Pro Arg Glu Arg Leu His Leu Glu Pro Ile Lys Glu Tyr Arg Arg Glu Gly Pro Arg Gly Pro His Leu Val Gly Pro Ser Arg Cys Leu Ser His Thr Asp Phe Val Pro Cys Pro Val Asp Thr Val Gln Ile Val Leu Pro Pro His Leu Glu Arg Ile Arg Glu Lys Leu Ala Glu Asn Ile His Glu Leu Trp Ala Leu Thr Arg Ile Glu Gln Gly Trp Thr Tyr Gly Pro Val Arg Asp Asp Asn Lys Arg Leu His Pro Cys Leu Val Asp Phe His Ser Leu Pro Glu Pro Glu Arg Asn Tyr Asn Leu Gln Met Ser Gly Glu Thr Leu Lys Thr Leu Leu Ala Leu Gly Cys His Val Gly Met Ala Asp Glu Lys Ala Glu Asp Asn Leu Lys Lys Thr Lys Leu Pro Lys Thr Tyr Met Met Ser Asn Gly Tyr Lys Pro Ala Pro Leu Asp Leu Ser His Val Arg Leu Thr Pro Ala Gln Thr Thr Leu Val Asp Arg Leu Ala Glu Asn Gly His Asn Val Trp Ala Arg Asp Arg Val Gly Gln Gly Trp Ser Tyr Ser Ala Val Gln Asp Ile Pro 

Ala Arg Arg Asn Pro Arg Leu Val Pro Tyr Arg Leu Leu Asp Glu Ala 1060 1065 1070 Thr Lys Arg Ser Asn Arg Asp Ser Leu Cys Gln Ala Val Arg Thr Leu 1075 1080 1085 Leu Gly Tyr Gly Tyr Asn Ile Glu Pro Pro Asp Gln Glu Pro Ser Gln 1090 1095 1100 Val Glu Asn Gln Ser Arg Cys Asp Arg Val Arg Ile Phe Arg Ala Glu 1110 1115 Lys Ser Tyr Thr Val Gln Ser Gly Arg Trp Tyr Phe Glu Phe Glu Ala 1125 1130 1135 Val Thr Thr Gly Glu Met Arg Val Gly Trp Ala Arg Pro Glu Leu Arg 1140 1145 1150 Pro Asp Val Glu Leu Gly Ala Asp Glu Leu Ala Tyr Val Phe Asn Gly 1155 1160 1165 His Arg Gly Gln Arg Trp His Leu Gly Ser Glu Pro Phe Gly Arg Pro 1175 1180 Trp Gln Pro Gly Asp Val Val Gly Cys Met Ile Asp Leu Thr Glu Asn 1190 1185 1195 Thr Ile Ile Phe Thr Leu Asn Gly Glu Val Leu Met Ser Asp Ser Gly 1205 1210 1215 Ser Glu Thr Ala Phe Arg Glu Ile Glu Ile Gly Asp Gly Phe Leu Pro 1220 1225 1230 Val Cys Ser Leu Gly Pro Gly Gln Val Gly His Leu Asn Leu Gly Gln 1235 1240 1245 Asp Val Ser Ser Leu Arg Phe Phe Ala Ile Cys Gly Leu Gln Glu Gly 1250 1255 1260 Phe Glu Pro Phe Ala Ile Asn Met Gln Arg Pro Val Thr Thr Trp Phe 1270 1275 Ser Lys Gly Leu Pro Gln Phe Glu Pro Val Pro Leu Glu His Pro His 1285 1290 1295 Tyr Glu Val Ser Arg Val Asp Gly Thr Val Asp Thr Pro Pro Cys Leu 1300 1305 1310 Arg Leu Thr His Arg Thr Trp Gly Ser Gln Asn Ser Leu Val Glu Met 1315 1320 1325 Leu Phe Leu Arg Leu Ser Leu Pro Val Gln Phe His Gln His Phe Arg 1330 1335 1340 Cys Thr Ala Gly Ala Thr Pro Leu Ala Pro Pro Gly Leu Gln Pro Pro 1345 1350 1355 Ala Glu Asp Glu Ala Arg Ala Ala Glu Pro Asp Pro Asp Tyr Glu Asn 1365 1370 1375 Leu Arg Arg Ser Ala Gly Gly Trp Ser Glu Ala Glu Asn Gly Lys Glu 1380 1385 1390 Gly Thr Ala Lys Glu Gly Ala Pro Gly Gly Thr Pro Gln Ala Gly Gly 1395 1400 Glu Ala Gln Pro Ala Arg Ala Glu Asn Glu Lys Asp Ala Thr Thr Glu 1405 1410 1415 1420 Lys Asn Lys Lys Arg Gly Phe Leu Phe Lys Ala Lys Lys Val Ala Met 1425 1430 1435 Met Thr Gln Pro Pro Ala Thr Pro Thr Leu Pro Arg Leu Pro His Asp 1445 1450 1455 Val Val Pro Ala Asp Asn Arg Asp Asp Pro Glu Ile Ile Leu Asn Thr 1460 1465 1470 Thr Thr Tyr Tyr Ser Val Arg Val Phe Ala Gly Gln Glu Pro Ser 1475 1480 Cys Val Trp Ala Gly Trp Val Thr Pro Asp Tyr His Gln His Asp Met 1485 1495 1500 Ser Phe Asp Leu Ser Lys Val Arg Val Val Thr Val Thr Met Gly Asp 1505 1510 1515 Glu Gln Gly Asn Val His Ser Ser Leu Lys Cys Ser Asn Cys Tyr Met 1525 1530 1535 Val Trp Gly Gly Asp Phe Val Ser Pro Gly Gln Gln Gly Arg Ile Ser 1545 1540 1550 His Thr Asp Leu Val Ile Gly Cys Leu Val Asp Leu Ala Thr Gly Leu 1555 1560 1565

Met Thr Phe Thr Ala Asn Gly Lys Glu Ser Asn Thr Phe Phe Gln Val 1575 Glu Pro Asn Thr Lys Leu Phe Pro Ala Val Phe Val Leu Pro Thr His 1590 1595 Gln Asn Val Ile Gln Phe Glu Leu Gly Lys Gln Lys Asn Ile Met Pro 1605 1610 1615 Leu Ser Ala Ala Met Phe Gln Ser Glu Arg Lys Asn Pro Ala Pro Gln 1620 1625 Cys Pro Pro Arg Leu Glu Met Gln Met Leu Met Pro Val Ser Trp Ser 1635 1640 1645 Arg Met Pro Asn His Phe Leu Gln Val Glu Thr Arg Arg Ala Gly Glu 1650 1655 1660 Arg Leu Gly Trp Ala Val Gln Cys Gln Glu Pro Leu Thr Met Met Ala 1675 1680 1670 1665 Leu His Ile Pro Glu Glu Asn Arg Cys Met Asp Ile Leu Glu Leu Ser 1685 1690 1695 Glu Arg Leu Asp Leu Gln Arg Phe His Ser His Thr Leu Arg Leu Tyr 1700 1705 1710 Arg Ala Val Cys Ala Leu Gly Asn Asn Arg Val Ala His Ala Leu Cys 1715 1720 1725 Ser His Val Asp Gln Ala Gln Leu Leu His Ala Leu Glu Asp Ala His 1735 1740 Leu Pro Gly Pro Leu Arg Ala Gly Tyr Tyr Asp Leu Leu Ile Ser Ile 1750 1755 His Leu Glu Ser Ala Cys Arg Ser Arg Arg Ser Met Leu Ser Glu Tyr 1765 1770 1775 Ile Val Pro Leu Thr Pro Glu Thr Arg Ala Ile Thr Leu Phe Pro Pro 1780 1785 1790 Gly Arg Ser Thr Glu Asn Gly His Pro Arg His Gly Leu Pro Gly Val 1795 1800 1805 Gly Val Thr Thr Ser Leu Arg Pro Pro His His Phe Ser Pro Pro Cys 1815 1820 Phe Val Ala Ala Leu Pro Ala Ala Gly Ala Ala Glu Ala Pro Ala Arg 1830 1835 Leu Ser Pro Ala Ile Pro Leu Glu Ala Leu Arg Asp Lys Ala Leu Arg 1845 1850 1855 Met Leu Gly Glu Ala Val Arg Asp Gly Gly Gln His Ala Arg Asp Pro 1860 1865 1870 Val Gly Ala Ser Val Glu Phe Gln Phe Val Pro Val Leu Lys Leu Val 1880 1885 Ser Thr Leu Leu Val Met Gly Ile Phe Gly Asp Glu Asp Val Lys Gln 1890 - 1895 1900 Ile Leu Lys Met Ile Glu Pro Glu Val Phe Thr Glu Glu Glu Glu Glu 1910 1915 1925 1930 1935 Glu Asp Glu Glu Glu Thr Ala Gln Glu Lys Glu Asp Glu Glu Lys Glu 1940 1945 Glu Glu Glu Ala Ala Glu Gly Glu Lys Glu Glu Gly Leu Glu Glu Gly 1960 1955 1965 Leu Leu Gln Met Lys Leu Pro Glu Ser Val Lys Leu Gln Met Cys His 1970 1975 1980 Leu Leu Glu Tyr Phe Cys Asp Gln Glu Leu Gln His Arg Val Glu Ser 1990 1995 Leu Ala Ala Phe Ala Glu Arg Tyr Val Asp Lys Leu Gln Ala Asn Gln 2005 2010 2015 Arg Ser Arg Tyr Gly Leu Leu Ile Lys Ala Phe Ser Met Thr Ala Ala 2020 2025 2030 Glu Thr Ala Arg Arg Thr Arg Glu Phe Arg Ser Pro Pro Gln Glu Gln 2035 2040 2045 Ile Asn Met Leu Leu Gln Phe Lys Asp Gly Thr Asp Glu Glu Asp Cys 2055 2060 Pro Leu Pro Glu Glu Ile Arg Gln Asp Leu Leu Asp Phe His Gln Asp 2075 2070

Leu Leu Ala His Cys Gly Ile Gln Leu Asp Gly Glu Glu Glu Pro 2085 2090 Glu Glu Glu Thr Thr Leu Gly Ser Arg Leu Met Ser Leu Leu Glu Lys 2100 2105 2110 Val Arg Leu Val Lys Lys Lys Glu Glu Lys Pro Glu Glu Glu Arg Ser 2115 2120 2125 Ala Glu Glu Ser Lys Pro Arg Ser Leu Gln Glu Leu Val Ser His Met 2135 2140 Val Val Arg Trp Ala Gln Glu Asp Phe Val Gln Ser Pro Glu Leu Val 2150 2155 Arg Ala Met Phe Ser Leu Leu His Arg Gln Tyr Asp Gly Leu Gly Glu 2165 2170 2175 Leu Leu Arg Ala Leu Pro Arg Ala Tyr Thr Ile Ser Pro Ser Ser Val 2180 2185 2190 Glu Asp Thr Met Ser Leu Leu Glu Cys Leu Gly Gln Ile Arg Ser Leu 2195 2200 2205 Leu Ile Val Gln Met Gly Pro Gln Glu Glu Asn Leu Met Ile Gln Ser 2210 2215 . 2220 Ile Gly Asn Ile Met Asn Asn Lys Val Phe Tyr Gln His Pro Asn Leu 2225 2230 2235 Met Arg Ala Leu Gly Met His Glu Thr Val Met Glu Val Met Val Asn 2245 2250 2255 Val Leu Gly Gly Glu Ser Lys Glu Ile Arg Phe Pro Lys Met Val . 2260 2265 2270 Thr Ser Cys Cys Arg Phe Leu Cys Tyr Phe Cys Arg Ile Ser Arg Gln 2275 2280 2285 Asn Gln Arg Ser Met Phe Asp His Leu Ser Tyr Leu Leu Glu Asn Ser 2290 . 2295 2300 Gly Ile Gly Leu Gly Met Gln Gly Ser Thr Pro Leu Asp Val Ala Ala 2310 2315 2305 Ala Ser Val Ile Asp Asn Asn Glu Leu Ala Leu Ala Leu Gln Glu Gln 2325 2330 2335 Asp Leu Glu Lys Val Val Ser Tyr Leu Ala Gly Cys Gly Leu Gln Ser 2340 2345 2350 Cys Pro Met Leu Val Ala Lys Gly Tyr Pro Asp Ile Gly Trp Lys Pro 2355 2360 2365 Cys Gly Glu Arg Tyr Leu Asp Phe Leu Arg Phe Ala Val Phe Val 2375 2380 Asn Gly Glu Ser Val Glu Glu Asn Ala Asn Val Val Arg Leu Leu 2385 2390 2395 Ile Arg Lys Pro Glu Cys Phe Gly Pro Ala Leu Arg Gly Glu Gly Gly 2410 2415 2405 Ser Gly Leu Leu Ala Ala Ile Glu Glu Ala Ile Arg Ile Ser Glu Asp 2420 2425 2430 Pro Ala Arg Asp Gly Pro Gly Ile Arg Arg Asp Arg Arg Glu His 2435 2440 2445 Phe Gly Glu Glu Pro Pro Glu Glu Asn Arg Val His Leu Gly His Ala 2450 2455 2460 Ile Met Ser Phe Tyr Ala Ala Leu Ile Asp Leu Leu Gly Arg Cys Ala 2470 2475 Pro Glu Met His Leu Ile Gln Ala Gly Lys Gly Glu Ala Leu Arg Ile 2485 2490 2495 Arg Ala Ile Leu Arg Ser Leu Val Pro Leu Glu Asp Leu Val Gly Ile 2500 2505 2510 Ile Ser Leu Pro Leu Gln Ile Pro Thr Leu Gly Lys Asp Gly Ala Leu 2520 2525 Val Gln Pro Lys Met Ser Ala Ser Phe Val Pro Asp His Lys Ala Ser 2530 2535 2540 Met Val Leu Phe Leu Asp Arg Val Tyr Gly Ile Glu Asn Gln Asp Phe 2545 2550 2555 Leu Leu His Val Leu Asp Val Gly Phe Leu Pro Asp Met Arg Ala Ala 2565 2570 2575 Ala Ser Leu Asp Thr Ala Thr Phe Ser Thr Thr Glu Met Ala Leu Ala 2585

Val Asn Arg Tyr Leu Cys Leu Ala Val Leu Pro Leu Ile Thr Lys Cys 2600 2605 Ala Pro Leu Phe Ala Gly Thr Glu His Arg Ala Ile Met Val Asp Ser 2610 2615 2620 Met Leu His Thr Val Tyr Arg Leu Ser Arg Gly Arg Ser Leu Thr Lys 2625 2630 2635 Ala Gln Arg Asp Val Ile Glu Asp Cys Leu Met Ser Leu Cys Arg Tyr 2650 2655 2645 Ile Arg Pro Ser Met Leu Gln His Leu Leu Arg Arg Leu Val Phe Asp 2660 2665 2670 Val Pro Ile Leu Asn Glu Phe Ala Lys Met Pro Leu Lys Leu Leu Thr 2675 2680 2685 Asn His Tyr Glu Arg Cys Trp Lys Tyr Tyr Cys Leu Pro Thr Gly Trp 2690 2695 2700 Ala Asn Phe Gly Val Thr Ser Glu Glu Glu Leu His Leu Thr Arg Lys 2705 2710 2715 Leu Phe Trp Gly Ile Phe Asp Ser Leu Ala His Lys Lys Tyr Asp Pro 2725 2730 2735 Glu Leu Tyr Arg Met Ala Met Pro Cys Leu Cys Ala Ile Ala Gly Ala 2740 2745 2750 Leu Pro Pro Asp Tyr Val Asp Ala Ser Tyr Ser Ser Lys Ala Glu Lys 2755 2760 2765 Lys Ala Thr Val Asp Ala Glu Gly Asn Phe Asp Pro Arg Pro Val Glu 2775 2780 Thr Leu Asn Val Ile Ile Pro Glu Lys Leu Asp Ser Phe Ile Asn Lys 2785 2790 2795 2800 2785 2790 Phe Ala Glu Tyr Thr His Glu Lys Trp Ala Phe Asp Lys Ile Gln Asn 2805 2810 Asn Trp Ser Tyr Gly Glu Asn Ile Asp Glu Glu Leu Lys Thr His Pro 2820 2825 2830 Met Leu Arg Pro Tyr Lys Thr Phe Ser Glu Lys Asp Lys Glu Ile Tyr 2840 2845 2835 Arg Trp Pro Ile Lys Glu Ser Leu Lys Ala Met Ile Ala Trp Glu Trp 2850 2855 2860 Thr Ile Glu Lys Ala Arg Glu Gly Glu Glu Glu Lys Thr Glu Lys Lys 2865 2870 2875 2880 Lys Thr Ala Lys Ile Ser Gln Ser Ala Gln Thr Tyr Asp Pro Arg Glu 2885 2890 2895 Gly Tyr Asn Pro Gln Pro Pro Asp Leu Ser Ala Val Thr Leu Ser Arg 2910 2905 2900 Glu Leu Gln Ala Met Ala Glu Gln Leu Ala Glu Asn Tyr His Asn Thr 2925 2915 2920 Trp Gly Arg Lys Lys Gln Glu Leu Glu Ala Lys Gly Gly Thr 2930 2935 2940 His Pro Leu Leu Val Pro Tyr Asp Thr Leu Thr Ala Lys Glu Lys Ala 2955 2950 Arg Asp Arg Glu Lys Ala Gln Glu Leu Leu Lys Phe Leu Gln Met Asn 2965 2970 Gly Tyr Ala Val Thr Arg Gly Leu Lys Asp Met Glu Leu Asp Ser Ser 2985 2990 2980 Ser Ile Glu Lys Arg Phe Ala Phe Gly Phe Leu Gln Gln Leu Leu Arg 3000 3005 Trp Met Asp Ile Ser Gln Glu Phe Ile Ala His Leu Glu Ala Val Val 3015 3020 3010 Ser Ser Gly Arg Val Glu Lys Ser Pro His Glu Gln Glu Ile Lys Phe 3030 3035 Phe Ala Lys Ile Leu Leu Pro Leu Ile Asn Gln Tyr Phe Thr Asn His 3045 3050 3055 Cys Leu Tyr Phe Leu Ser Thr Pro Ala Lys Val Leu Gly Ser Gly Gly 3060 3065 3070 His Ala Ser Asn Lys Glu Lys Glu Met Ile Thr Ser Leu Phe Cys Lys 3075 3080 3085 Leu Ala Ala Leu Val Arg His Arg Val Ser Leu Phe Gly Thr Asp Ala 3100 3095

Pro Ala Val Val Asn Cys Leu His Ile Leu Ala Arg Ser Leu Asp Ala 3105 3110 3115 3120 Arg Thr Val Met Lys Ser Gly Pro Glu Ile Val Lys Ala Gly Leu Arg 3125 3130 Ser Phe Phe Glu Ser Ala Ser Glu Asp Ile Glu Lys Met Val Glu Asn 3140 3145 3150 Leu Arg Leu Gly Lys Val Ser Gln Ala Arg Thr Gln Val Lys Gly Val 3155 3160 3165 Gly Gln Asn Leu Thr Tyr Thr Thr Val Ala Leu Leu Pro Val Leu Thr 3175 3180 Thr Leu Phe Gln His Ile Ala Gln His Gln Phe Gly Asp Asp Val Ile 3190 3195 Leu Asp Asp Val Gln Val Ser Cys Tyr Arg Thr Leu Cys Ser Ile Tyr 3205 3210 3215 Ser Leu Gly Thr Thr Lys Asn Thr Tyr Val Glu Lys Leu Arg Pro Ala 3220 3225 3230 Leu Gly Glu Cys Leu Ala Arg Leu Ala Ala Ala Met Pro Val Ala Phe 3240 3245 3235 Leu Glu Pro Gln Leu Asn Glu Tyr Asn Ala Cys Ser Val Tyr Thr Thr 3250 3255 3260 Lys Ser Pro Arg Glu Arg Ala Ile Leu Gly Leu Pro Asn Ser Val Glu 3265 3270 3275 3280 Glu Met Cys Pro Asp Ile Pro Val Leu Glu Arg Leu Met Ala Asp Ile 3285 3290 3295 Gly Gly Leu Ala Glu Ser Gly Ala Arg Tyr Thr Glu Met Pro His Val 3300 3305 3310 Ile Glu Ile Thr Leu Pro Met Leu Cys Ser Tyr Leu Pro Arg Trp Trp 3315 3320 3325 Glu Arg Gly Pro Glu Ala Pro Pro Ser Ala Leu Pro Ala Gly Ala Pro 3330 3335 3340 Pro Pro Cys Thr Ala Val Thr Ser Asp His Leu Asn Ser Leu Leu Gly 3350 3355 3360 Asn Ile Leu Arg Ile Ile Val Asn Asn Leu Gly Ile Asp Glu Ala Ser 3365 3370 3375 Trp Met Lys Arg Leu Ala Val Phe Ala Gln Pro Ile Val Ser Arg Ala 3380 3385 3390 Arg Pro Glu Leu Leu Gln Ser His Phe Ile Pro Thr Ile Gly Arg Leu 3395 3400 3405 Arg Lys Arg Ala Gly Lys Val Val Ser Glu Glu Glu Gln Leu Ala Leu 3410 3415 3420 Glu Ala Lys Ala Glu Ala Gln Glu Gly Glu Leu Leu Val Arg Asp Glu 3425 3430 3435 3440 Phe Ser Val Leu Cys Arg Asp Leu Tyr Ala Leu Tyr Pro Leu Leu Ile 3445 3450 3455 Arg Tyr Val Asp Asn Asn Arg Ala Gln Trp Leu Thr Glu Pro Asn Pro 3460 3465 3470 Ser Ala Glu Glu Leu Phe Arg Met Val Gly Glu Ile Phe Ile Tyr Trp 3475 3485 3480 Ser Lys Ser His Asn Phe Lys Arg Glu Glu Gln Asn Phe Val Val Gln 3490 3495 3500 Asn Glu Ile Asn Asn Met Ser Phe Leu Thr Ala Asp Asn Lys Ser Lys 3510 3515 3520 Met Ala Lys Ala Gly Asp Ile Gln Ser Gly Gly Ser Asp Gln Glu Arg 3525 3530 3535 Thr Lys Lys Arg Arg Gly Asp Arg Tyr Ser Val Gln Thr Ser Leu 3540 3545 3550 Ile Val Ala Thr Leu Lys Lys Met Leu Pro Ile Gly Leu Asn Met Cys 3555 3560 Ala Pro Thr Asp Gln Asp Leu Ile Thr Leu Ala Lys Thr Arg Tyr Ala 3570 3575 3580 Leu Lys Asp Thr Asp Glu Glu Val Arg Glu Phe Leu His Asn Asn Leu 3590 3595 3600 His Leu Gln Gly Lys Val Glu Gly Ser Pro Ser Leu Arg Trp Gln Met 3610

Ala Leu Tyr Arg Gly Val Pro Gly Arg Glu Glu Asp Ala Asp Asp Pro 3625 Glu Lys Ile Val Arg Arg Val Gln Glu Val Ser Ala Val Leu Tyr Tyr 3640 3645 3635 Leu Asp Gln Thr Glu His Pro Tyr Lys Ser Lys Lys Ala Val Trp His 3650 3655 3660 Lys Leu Leu Ser Lys Gln Arg Arg Arg Ala Val Val Ala Cys Phe Arg 3670 3675 Met Thr Pro Leu Tyr Asn Leu Pro Thr His Arg Ala Cys Asn Met Phe 3685 3690 Leu Glu Ser Tyr Lys Ala Ala Trp Ile Leu Thr Glu Asp His Ser Phe 3700 3705 3710 Glu Asp Arg Met Ile Asp Asp Leu Ser Lys Ala Gly Glu Glu Glu 3715 3720 3725 Glu Glu Glu Glu Val Glu Lys Lys Pro Asp Pro Leu His Gln Leu 3730 3740 Val Leu His Phe Ser Arg Thr Ala Leu Thr Glu Lys Ser Lys Leu Asp 3745 3750 3755 Glu Asp Tyr Leu Tyr Met Ala Tyr Ala Asp Ile Met Ala Lys Ser Cys 3775 3765 3770 His Leu Glu Glu Gly Gly Glu Asn Gly Glu Ala Glu Glu Glu Val Glu 3790 3780 3785 Val Ser Phe Glu Glu Lys Gln Met Glu Lys Gln Arg Leu Leu Tyr Gln 3795 3800 Gln Ala Arg Leu His Thr Arg Gly Ala Ala Glu Met Val Leu Gln Met 3815 3820 Ile Ser Ala Cys Lys Gly Glu Thr Gly Ala Met Val Ser Ser Thr Leu 3830 3835 Lys Leu Gly Ile Ser Ile Leu Asn Gly Gly Asn Ala Glu Val Gln Gln 3845 3850 3855 Lys Met Leu Asp Tyr Leu Lys Asp Lys Lys Glu Val Gly Phe Phe Gln 3860 3865 3870 Ser Ile Gln Ala Leu Met Gln Thr Cys Ser Val Leu Asp Leu Asn Ala 3885 3875 3880 Phe Glu Arg Gln Asn Lys Ala Glu Gly Leu Gly Met Val Asn Glu Asp 3890 3895 3900 Gly Thr Val Ile Asn Arg Gln Asn Gly Glu Lys Val Met Ala Asp Asp 3910 3915 3905 Glu Phe Thr Gln Asp Leu Phe Arg Phe Leu Gln Leu Leu Cys Glu Gly 3925 3930 His Asn Asn Asp Phe Gln Asn Tyr Leu Arg Thr Gln Thr Gly Asn Thr 3950 3945 Thr Thr Ile Asn Ile Ile Ile Cys Thr Val Asp Tyr Leu Leu Arg Leu 3960 3965 . 3955 Gln Glu Ser Ile Ser Asp Phe Tyr Trp Tyr Tyr Ser Gly Lys Asp Val 3980 3975 Ile Glu Glu Gln Gly Lys Arg Asn Phe Ser Lys Ala Met Ser Val Ala 3990 3995 Lys Gln Val Phe Asn Ser Leu Thr Glu Tyr Ile Gln Gly Pro Cys Thr 4010 4015 4005 Gly Asn Gln Gln Ser Leu Ala His Ser Arg Leu Trp Asp Ala Val Val 4025 4020 Gly Phe Leu His Val Phe Ala His Met Met Lys Leu Ala Gln Asp 4045 4035 4040 Ser Ser Gln Ile Glu Leu Leu Lys Glu Leu Leu Asp Leu Gln Lys Asp 4060 4050 4055 Met Val Val Met Leu Leu Ser Leu Leu Glu Gly Asn Val Val Asn Gly 4070 4075 Met Ile Ala Arg Gln Met Val Asp Met Leu Val Glu Ser Ser Ser Asn 4085 4090 Val Glu Met Ile Leu Lys Phe Phe Asp Met Phe Leu Lys Leu Lys Asp 4105 4110 4100 Ile Val Gly Ser Glu Ala Phe Gln Asp Tyr Val Thr Asp Pro Arg Gly

Leu Ile Ser Lys Lys Asp Phe Gln Lys Ala Met Asp Ser Gln Lys Gln 4135 4140 Phe Ser Gly Pro Glu Ile Gln Phe Leu Leu Ser Cys Ser Glu Ala Asp 4150 4155 Glu Asn Glu Met Ile Asn Cys Glu Glu Phe Ala Asn Arg Phe Gln Glu 4165 4170 4175 Pro Ala Arg Asp Ile Gly Phe Asn Val Ala Val Leu Leu Thr Asn Leu 4185 4190 Ser Glu His Val Pro His Asp Pro Arg Leu His Asn Phe Leu Glu Leu 4200 4205 4195 Ala Glu Ser Ile Leu Glu Tyr Phe Arg Pro Tyr Leu Gly Arg Ile Glu 4210 4215 4220 Ile Met Gly Ala Ser Arg Arg Ile Glu Arg Ile Tyr Phe Glu Ile Ser 4225 4230 . 4235 Glu Thr Asn Arg Ala Gln Trp Glu Met Pro Gln Val Lys Glu Ser Lys 4245 4250 4255 Arg Gln Phe Ile Phe Asp Val Val Asn Glu Gly Gly Glu Ala Glu Lys 4260 4265 4270 Met Glu Leu Phe Val Ser Phe Cys Glu Asp Thr Ile Phe Glu Met Gln 4275 4280 4285 Ile Ala Ala Gln Ile Ser Glu Pro Glu Gly Glu Pro Glu Thr Asp Glu 4295 4300 Asp Glu Gly Ala Gly Ala Glu Ala Gly Ala Glu Gly Ala Glu Glu 4310 4315 Gly Ala Ala Gly Leu Glu Gly Thr Ala Ala Thr Ala Ala Ala Gly Ala 4325 4330 4335 Thr Ala Arg Val Val Ala Ala Ala Gly Arg Ala Leu Arg Gly Leu Ser 4340 4345 4350 Tyr Arg Ser Leu Arg Arg Arg Val Arg Arg Leu Arg Arg Leu Thr Ala 4360 4365 Arg Glu Ala Ala Thr Ala Val Ala Ala Leu Leu Trp Ala Ala Val Thr 4375 4380 Arg Ala Gly Ala Ala Gly Ala Gly Ala Ala Gly Ala Leu Gly Leu 4390 4395 Leu Trp Gly Ser Leu Phe Gly Gly Gly Leu Val Glu Gly Ala Lys Lys 4405 4410 4415 Val Thr Val Thr Glu Leu Leu Ala Gly Met Pro Asp Pro Thr Ser Asp 4420 4425 4430 Glu Val His Gly Glu Gln Pro Ala Gly Pro Gly Gly Asp Ala Asp Gly 4435 4440 . 4445 Glu Gly Ala Ser Glu Gly Ala Gly Asp Ala Ala Glu Gly Ala Gly Asp 4450 4455 4460 Glu Glu Glu Ala Val His Glu Ala Gly Pro Gly Gly Ala Asp Gly Ala 4470 4475 4465 Val Ala Val Thr Asp Gly Gly Pro Phe Arg Pro Glu Gly Ala Gly Gly 4490 4495 Leu Gly Asp Met Gly Asp Thr Thr Pro Ala Glu Pro Pro Thr Pro Glu 4500 4505 4510 Gly Ser Pro Ile Leu Lys Arg Lys Leu Gly Val Asp Gly Val Glu Glu 4515 4520 4525 Glu Leu Pro Pro Glu Pro Glu Pro Glu Pro Glu Pro Glu Leu Glu Pro 4535 4540 Glu Lys Ala Asp Ala Glu Asn Gly Glu Lys Glu Glu Val Pro Glu Pro 1545 4550 4555 4560 Thr Pro Glu Pro Pro Lys Lys Gln Ala Pro Pro Ser Pro Pro Pro Lys 4565 4570 Lys Glu Glu Ala Gly Gly Glu Phe Trp Gly Glu Leu Glu Val Gln Arg 4580 4585 4590 Val Lys Phe Leu Asn Tyr Leu Ser Arg Asn Phe Tyr Thr Leu Arg Phe 4595 4600 4605 Leu Ala Leu Phe Leu Ala Phe Ala Ile Asn Phe Ile Leu Leu Phe Tyr 4610 4615 4620 Lys Val Ser Asp Ser Pro Pro Gly Glu Asp Asp Met Glu Gly Ser Ala 4630 4635

Ala Gly Asp Val Ser Gly Ala Gly Ser Gly Gly Ser Ser Gly Trp Gly 4645 4650 Leu Gly Ala Gly Glu Glu Ala Glu Gly Asp Glu Asp Glu Asn Met Val 4665 4660 Tyr Tyr Phe Leu Glu Glu Ser Thr Gly Tyr Met Glu Pro Ala Leu Arg 4680 4685 Cys Leu Ser Leu Leu His Thr Leu Val Ala Phe Leu Cys Ile Ile Gly
4690 4695 4700 4695 4700 Tyr Asn Cys Leu Lys Val Pro Leu Val Ile Phe Lys Arg Glu Lys Glu 4715 4705 4710 Leu Ala Arg Lys Leu Glu Phe Asp Gly Leu Tyr Ile Thr Glu Gln Pro 4725 4730 Glu Asp Asp Asp Val Lys Gly Gln Trp Asp Arg Leu Val Leu Asn Thr 4740 4745 4750 Pro Ser Phe Pro Ser Asn Tyr Trp Asp Lys Phe Val Lys Arg Lys Val 4755 4760 **47**65 Leu Asp Lys His Gly Asp Ile Tyr Gly Arg Glu Arg Ile Ala Glu Leu 4780 4775 Leu Gly Met Asp Leu Ala Thr Leu Glu Ile Thr Ala His Asn Glu Arg 4795 4785 4790 Lys Pro Asn Pro Pro Pro Gly Leu Leu Thr Trp Leu Met Ser Ile Asp 4815 4805 4810 Val Lys Tyr Gln Ile Trp Lys Phe Gly Val Ile Phe Thr Asp Asn Ser 4820 4825 4830 Phe Leu Tyr Leu Gly Trp Tyr Met Val Met Ser Leu Leu Gly His Tyr 4835 4840 4845 Asn Asn Phe Phe Ala Ala His Leu Leu Asp Ile Ala Met Gly Val 4850 4855 4860 Lys Thr Leu Arg Thr Ile Leu Ser Ser Val Thr His Asn Gly Lys Gln 4870 4875 Leu Val Met Thr Val Gly Leu Leu Ala Val Val Tyr Leu Tyr Thr 4890 4895 4885 Val Val Ala Phe Asn Phe Phe Arg Lys Phe Tyr Asn Lys Ser Glu Asp 4900 4905 4910 Glu Asp Glu Pro Asp Met Lys Cys Asp Asp Met Met Thr Cys Tyr Leu 4925 4915 4920 Phe His Met Tyr Val Gly Val Arg Ala Gly Gly Gly Ile Gly Asp Glu
4930 4935 4940 4935 4940 Ile Glu Asp Pro Ala Gly Asp Glu Tyr Glu Leu Tyr Arg Val Val Phe 4950 4955 . 4960 Asp Ile Thr Phe Phe Phe Phe Val Ile Val Ile Leu Leu Ala Ile Ile 4965 4970 4975 Gln Gly Leu Ile Ile Asp Ala Phe Gly Glu Leu Arg Asp Gln Gln Glu 4980 4985 4990 Gln Val Lys Glu Asp Met Glu Thr Lys Cys Phe Ile Cys Gly Ile Gly 5000 5005 4995 Ser Asp Tyr Phe Asp Thr Thr Pro His Gly Phe Glu Thr His Thr Leu 5010 5015 5020 Glu Glu His Asn Leu Ala Asn Tyr Met Phe Phe Leu Met Tyr Leu Ile 5030 5035 5025 Asn Lys Asp Glu Thr Glu His Thr Gly Gln Glu Ser Tyr Val Trp Lys 5045 5050 Met Tyr Gln Glu Arg Cys Trp Asp Phe Phe Pro Ala Gly Asp Cys Phe 5060 5065 Arg Lys Gln Tyr Glu Asp Gln Leu Ser 5075 50805081

<210> 1851 <211> 67 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(66) <223> Xaa = any amino acid or nothing <400> 1851 Val Ile Val Ala Ile Tyr Cys Gln Leu Ile Phe Asp Lys Gly Ala Lys 10 Thr Ile Gln Xaa Pro Phe Gln Gln Ile Ala Leu Cys Lys Arg Met Lys 20 25 Leu Gly Pro Cys Phe Thr Pro Cys Gly Lys Ile Asn Ser Glu Trp Ile 35 40 45 Arg Glu Leu Ser Val Arg Val Lys Thr Ile Lys His Leu Glu Ile Gly 55 60 Val Asn 65 66 <210> 1852 <211> 107 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(105) <223> Xaa = any amino acid or nothing <400> 1852 Ser Gly Met Gln Trp Arg Asp Leu Thr Pro Leu Gln Pro Leu Pro Pro 10 Arg Phe Lys Gln Phe Ser Cys Leu Ser Leu Pro Gly Ser Trp Asp Tyr 20 25 30 Arg His Ala Pro Pro Leu Leu Thr Asn Phe Xaa Phe Leu Val Glu Met 35 40 Gly Phe Cys Tyr Val Gly Gln Ala Gly Arg Lys Leu Leu Ala Ser Ser 55 60 Asp Gln Ser Ala Leu Ala Ser Gln Ser Ala Gly Ile Thr Gly Ile Ser 75 Thr Ala Pro Gly Pro Pro Phe Phe Leu Asn Phe Glu Ala Gly Ser 85 90 Cys Ser Val Ala Gln Ala Gly Val Gln <210> 1853 <211> 196 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(194) <223> Xaa = any amino acid or nothing <400> 1853 Glu Val Asp Ser Gln Ser Gly Val Gln Xaa Gln Ala Pro Gly Ser Leu 5 10 Gln Leu Gln Thr Pro Gly Leu Lys Val Ser Cys Leu Leu Ser Arg Gln

30

45

25

Asp Tyr Arg Ser Ser Leu Pro His Leu Ala Ser Cys Cys Tyr Tyr Tyr

40

20

35

Tyr Tyr Tyr Val Phe Leu Xaa Arg Arg Gly Leu Thr Thr Leu Val Gln 60 55 Gly Gly Leu Lys Leu Leu Pro Ser Ser Asn Pro Phe Ala Ser Ala Pro 70 75 Xaa Thr Ala Gly Ile Thr Gly Met Ser His Cys Ala Gly Pro His Phe 85 90 Asn Phe Xaa Met Phe Arg Lys Ile Ser Cys Ile Arg Glu Xaa Phe Xaa 100 105 110 His Thr Arg Ile Tyr Asp Ile Pro Phe Leu Ile Leu Phe Phe Lys Glu 115 120 Thr Trp Val Leu Leu Cys Tyr Pro Gly Trp Pro Gln Ile Pro Gly Leu 135 140 Lys Pro Ser Ser Cys Leu Arg Leu Leu Ser Ser Trp Asp His Arg Cys 155 150 Ala Pro Pro Cys Pro Ala Ser Phe Phe Ile Phe His Val Asp Arg Val 170 175 165 Ser Pro Pro Cys Pro Gly Leu Val Ser Ile Thr Phe Lys Met Leu Leu 185 Leu Leu 194

<210> 1854 <211> 71 <212> PRT <213> Homo sapiens

Thr Gly Lys Asp Ala Met Arg Ser Phe Met Met Pro Phe Tyr Gln Lys 50 55 60 Hu Tyr Tyr Glu Asn Gln *

Glu Tyr Tyr Glu Asn Gln 65 70

> <210> 1855 <211> 466 <212> PRT <213> Homo sapiens

<221> misc_feature /
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<223> Xaa = any amino acid or nothing

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                                 90
Leu Asn Asn Arg Phe Ile Lys Val Tyr Trp His Arg Glu Gly Ser Thr
         100
                           105
Gln Gln Leu Gln Thr Thr Ser Pro Lys Val Met Gln Pro Leu Val Gln
      115
                         120
                                          125
Gln Pro Ile Leu Pro Val Val Lys Gln Ser Val Lys Glu Arg Leu Gly
                    135
                                      140
Pro Val Pro Ser Ser Thr Ile Glu Pro Ala Glu Ala Gln Ser Ala Ser
        150 155
Ser Asp Leu Pro Gln Val Leu Ser Thr Leu Leu Ala Xaa Gln Lys Gln
            165
                     170
                                        175
Cys Ile Ile Gln Leu Leu Trp Lys Ala Ala Gln Lys Thr Leu Leu Val
                           185 190
Ser Thr Ser Ala Val Asp Asn Asn Glu Ala Gln Lys Lys Gln Glu
                        200
                                          205
Ala Leu Lys Leu Gln Gln Asp Val Arg Lys Arg Lys Gln Glu Ile Leu
                     215
                                       220
Glu Lys His Ile Glu Thr Gln Lys Met Leu Ile Ser Lys Leu Glu Lys
           230
                                  235
Asn Lys Thr Met Lys Ser Glu Asp Lys Ala Glu Ile Met Lys Thr Leu
              245 250 255
Glu Val Leu Thr Lys Asn Ile Thr Lys Leu Lys Asp Glu Val Lys Ala
         260
                             265
Ala Ser Pro Gly Arg Cys Leu Pro Lys Ser Ile Lys Thr Lys Thr Gln
      275
                        280
Met Gln Lys Glu Leu Leu Asp Thr Glu Leu Asp Leu Tyr Lys Lys Met
                     295
                                       300
Gln Ala Gly Glu Glu Val Thr Glu Leu Arg Arg Lys Tyr Thr Glu Leu
                 310
                                  315
Gln Leu Glu Ala Ala Lys Arg Gly Ile Leu Ser Ser Gly Arg Gly Arg
             325
                             330
Gly Ile His Ser Arg Gly Arg Gly Ala Val His Gly Arg Gly Arg Gly
          340
                            345
                                              350
Arg Gly Arg Gly Arg Gly Val Pro Gly His Ala Val Val Asp His Arg
                       360
                                        365
Pro Arg Ala Leu Glu Ile Ser Ala Phe Thr Glu Ser Asp Arg Glu Asp
                     375
                                      380
Leu Leu Pro His Phe Ala Gln Tyr Gly Glu Ile Glu Asp Cys Gln Ile
        390
                                   395
Asp Asp Ser Ser Leu His Ala Val Ile Thr Phe Lys Thr Arg Ala Glu
             405
                               410
Ala Glu Ala Ala Ala Val His Gly Ala Arg Phe Lys Gly Gln Asp Leu
                            425
Lys Leu Ala Trp Asn Lys Pro Val Thr Asn Ile Ser Ala Val Glu Thr
                       440
Glu Glu Val Glu Pro Asp Glu Glu Glu Gln Arg Glu Ile Ile Ile Ala
                    455
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<210> 1856
<211> 344
<212> PRT
<213> Homo sapiens

<221> misc_feature
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<223> Xaa = any amino acid or nothing
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<400> 1856

Asp Ala Glu Leu Ser Gly Thr Leu Ser Leu Val Leu Thr Gln Cys Cys 10 . 5 Lys Arg Ile Lys Asp Thr Val Gln Lys Leu Ala Ser Asp His Lys Asp 20 25 Ile His Ser Ser Val Ser Arg Val Gly Lys Ala Ile Asp Lys Asn Phe 40 Asp Ser Asp Ile Ser Ser Val Gly Ile Asp Gly Cys Trp Gln Ala Asp 60 55 Ser Gln Arg Leu Leu Asn Glu Val Met Val Glu His Phe Phe Arg Gln 70 Gly Met Leu Asp Val Ala Glu Glu Leu Cys Gln Glu Ser Gly Leu Ser 85 90 95 Val Asp Pro Ser Gln Lys Glu Pro Phe Val Glu Leu Asn Arg Ile Leu 100 105 110 Glu Ala Leu Lys Val Arg Val Leu Arg Pro Ala Leu Glu Trp Ala Val 125 120 Ser Asn Arg Glu Met Leu Ile Ala Gln Asn Ser Ser Leu Glu Phe Lys 135 140 Leu His Arg Leu Tyr Phe Ile Ser Leu Leu Met Gly Gly Thr Thr Asn 150 155 Gln Arg Glu Ala Leu Gln Tyr Ala Lys Asn Phe Gln Pro Phe Ala Leu 165 170 175 Asn His Gln Lys Asp Ile Gln Val Leu Met Gly Ser Leu Val Tyr Leu 180 185 Arg Gln Gly Ile Glu Asn Ser Pro Tyr Val His Leu Leu Asp Ala Asn 195 200 205 Gln Trp Ala Asp Ile Cys Asp Ile Phe Thr Arg Asp Ala Cys Ala Leu 215 220 Leu Gly Leu Ser Val Glu Ser Pro Leu Ser Val Ser Phe Ser Ala Gly 230 235 Cys Val Ala Leu Pro Ala Leu Ile Asn Ile Lys Ala Val Ile Glu Gln 245 250 Arg Gln Cys Thr Gly Val Trp Asn Gln Lys Asp Glu Leu Pro Ile Glu 260 265 270 265 Val Asp Leu Gly Xaa Lys Ser Ala Gly Tyr His Ser Ile Phe Ala Cys 285 280 Pro Ile Leu Arg Gln Gln Thr Thr Asp Asn Asn Pro Pro Met Lys Leu 295 Val Cys Gly His Ile Ile Ser Arg Asp Ala Leu Asn Lys Met Phe Asn 315 310 Gly Ser Lys Leu Lys Cys Pro Tyr Cys Pro Met Glu Gln Ser Pro Gly 325 330 Asp Ala Lys Gln Ile Phe Phe 343

<210> 1857

<211> 140

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(140)

<223> Xaa = any amino acid or nothing

<400> 1857

 Ser His Pro Phe Ser Pro Ala Pro Gly Ile Cys Pro Asp Ala Pro Pro 1
 5
 10
 15

 Pro Leu Pro Arg Pro Ser Lys Gly Leu Gly His Pro Gly Thr Ala Gly 20
 25
 30

 Ala Pro Gly Ser Gly Ala Arg Cys His Pro Pro Ser Thr Cys Ser Pro 35
 40
 45

<210> 1858
<211> 98
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(97)
<223> Xaa = any amino acid or nothing

<400> 1858 Trp Cys Pro Ala Gly Thr Leu Asp Phe Pro Gly Pro Gln Glu Met Val 10 Leu Leu Glu Ile Glu Val Met Asn Gln Leu Asn His Arg Asn Leu Ile 20 25 Gln Leu Tyr Ala Ala Ile Glu Thr Pro His Glu Ile Val Leu Phe Met 35 40 45 Glu Tyr Glu Cys Pro Lys Xaa Trp Xaa Gly Leu Gly Gly Gly Thr Thr 55 60 Arg His Gly Ala Ser Arg Gly Gly Val Cys Ala His Ser Ile Glu Gly 70 75 Gly Glu Leu Phe Glu Arg Ile Val Asp Glu Asp Tyr His Leu Thr Glu 85 90 97

<210> 1859
<211> 123
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(120)
<223> Xaa = any amino acid or nothing

Thr Met Trp Tyr Cys His Lys Asn Arg Tyr Ile Asp Glu Arg Asn Arg 95

Ile Glu Ile Pro Glu Ile Asn Pro Cys Ile Cys Asp Lys Ile Ile Phe 100 105 110

Arg Lys Leu Ser Met Thr Thr Gln 120 .

<210> 1860 <211> 43 <212> PRT <213> Homo sapiens

<210> 1861 <211> 353 <212> PRT <213> Homo sapiens

<221> misc_feature
<222> (1)...(350)
<223> Xaa = any amino acid or nothing

<400> 1861 Pro Pro Ala Trp Ala Pro Arg Ser Pro Leu Ile Trp Ala Pro Thr Ser 10 Gly Arg His Pro Cys Arg Ala Ala Leu Pro Trp Ser Thr Ser Ser Val 25 Arg Trp Gln Pro Ser Glu Lys Gln Pro Pro Pro Pro Ala His Arg Gly 40 45 Pro Ala Asp Ser Leu Ser Thr Ala Ala Gly Ala Ala Glu Leu Ser Ala Glu Gly Ala Gly Lys Ser Arg Gly Ser Gly Glu Gln Asp Trp Val Asn 70 75 Arg Pro Lys Thr Val Arg Asp Thr Leu Leu Ala Leu His Gln His Gly 90 85 His Ser Gly Pro Phe Glu Ser Lys Phe Lys Lys Glu Pro Ala Leu Thr 100 105 Ala Val Ala Arg Thr Ala Arg Lys Arg Lys Pro Ser Pro Glu Pro Glu 120 125 Gly Glu Val Gly Pro Pro Lys Thr Thr Glu Arg Pro Ser Arg Gly Cys 140 135 Pro His Pro Gln Arg Gly Ser Arg Ser Pro Xaa Leu Leu His Pro Leu 150 155 Leu Cys Leu Arg His His Pro Leu Pro His Leu Ile Pro Thr Gly Pro 165 170 His Arg Leu Lys Arg Pro Arg Met Pro Ser Pro Met Ala Ala Leu Ile 190 185 180 Leu Val Ala Asp Asn Ala Gly Gly Ser His Ala Ser Lys Asp Ala Asn Gln Val His Ser Thr Thr Arg Arg Asn Ser Asn Ser Pro Pro Ser Pro 215

Ser Ser Met Asn Gln Arg Arg Leu Gly Pro Arg Glu Val Gly Gln 230 235 240 Gly Ala Gly Asn Thr Gly Gly Leu Glu Pro Val His Pro Ala Ser Leu 245 250 255 Pro Asp Ser Ser Leu Ala Thr Ser Ala Pro Leu Cys Cys Thr Leu Cys 260 265 His Glu Arg Leu Glu Asp Thr His Phe Val Gln Cys Pro Ser Val Pro 280 285 Ser His Lys Phe Cys Phe Pro Cys Ser Arg Gln Ser Ile Lys Gln Gln 295 300 Gly Ala Ser Gly Glu Val Tyr Cys Pro Ser Gly Glu Lys Cys Pro Leu 305 310 315 Val Gly Ser Asn Val Pro Trp Ala Phe Met Gln Gly Glu Ile Ala Thr 330 Ile Leu Ala Gly Asp Val Lys Val Lys Lys Glu Arg Asp Ser 345

<210> 1862

<211> 366

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(361)

<223> Xaa = any amino acid or nothing

<400> 1862

Gln Asp Arg Ala Arg Leu Asp Cys Ser Ser Ala Thr Ser Ala His Cys 10 Asn Leu Arg Leu Pro Gly Ser Xaa Asp Ser Pro Ala Ser Ala Ser Arg 20 25 Val Ala Gly Thr Thr Asp Thr His His His Thr Trp Leu Ile Leu Gly 40 Ser Ser Val Gln Thr Gly Phe Asp His Val Gly Gln Ala Gly Leu Glu 55 60 Leu Leu Thr Ser Gly Asp Pro Pro Ile Ser Ala Ser Glu Ser Ala Gly 75 70 Ile Met Gly Met Ser His Cys Val Trp Pro Xaa Ser Trp Gly Leu Ser 85 90 His His Met Ala Pro Pro Gln Gly Asp Gly Gly Arg Ala Arg Gly Thr 100 105 Pro Gly Pro Glu Gln Ser Phe Trp Asn Leu Ser Cys His Xaa Pro Arg 115 -120 Cys Gln Val Pro Ser Xaa Leu Met Thr Gln Leu Phe Trp Gly Arg His 135 140 Gln Tyr Asn Pro Thr Met Lys Arg Gly Lys Leu Arg His Arg Glu Ala 150 155 Cys Ser Leu Pro Leu Pro Gly Glu Gly Glu Pro Gly Leu Gln Pro Ser 170 , 165 175 Ser Xaa Ser Gln Asn Pro Cys Ser Ser Pro Leu Phe His His Gly Leu 180 185 190 Kaa Ala Trp Leu Trp Cys Pro Glu Leu Leu Gln Gly Gln Ala Arg 200 Arg His Xaa Arg Ser Pro Pro Ser Phe Lys Cys Pro Ala Thr Leu Ser 215 220 Leu Thr Ala Trp Ser Gln Thr Lys Arg Leu Arg Ser Gln Phe Leu Leu 230 235 Leu Pro Trp Leu Xaa Arg Ala Leu Xaa His Pro Pro Cys His Trp Pro 245 250 Ser Arg Arg Ser Leu Gly Asp Pro Leu Leu Pro Arg Ser Gln Gly Xaa

Arg Asp Gly Thr Xaa Ala Ser Thr Phe Cys Ser Tyr Phe Xaa Asp Thr Glu Ser His Leu Val Ala Gln Ala Gly Val Gln Trp Arg Asp Leu Gly Ser Leu Gln Pro Pro Cys Pro Arg Leu Lys Arg Phe Ser Arg Leu Ser Pro Pro Ser Ser Tyr Thr His Arg Tyr Val Pro Ser His Leu Ala Glu 325 330 Ser Cys Ile Ser Ser Arg Asp Arg Ile Pro Pro Ser Arg Pro Asp Arg Ser Arg Asn Ser Asn Ser Leu Ser Arg 360 361

<210> 1863
<211> 861
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(851)
<223> Xaa = any amino acid or nothing

<400> 1863 Val Ala Leu Thr Thr Ser Met Cys Cys Asn Lys Gln Val Ile Val Ile Asp Lys Ile Lys Ser Ala Ser Ile Ala Asp Arg Cys Gly Ala Leu His Val Gly Asp His Ile Leu Ser Ile Asp Gly Thr Ser Met Glu Tyr Cys Thr Leu Ala Glu Ala Thr Gln Phe Leu Ala Asn Thr Thr Asp Gln Val Lys Leu Glu Ile Leu Pro His His Gln Thr Arg Leu Ala Leu Lys Gly Pro Asp His Val Lys Ile Gln Arg Ser Asp Arg Gln Leu Thr Trp Asp Ser Trp Ala Ser Asn His Ser Ser Leu His Thr Asn His His Tyr Asn Thr Tyr His Pro Asp His Cys Arg Val Pro Ala Leu Thr Phe Pro Lys Ala Pro Pro Pro Asn Ser Pro Pro Ala Leu Val Ser Ser Ser Phe Ser Pro Thr Ser Met Ser Ala Tyr Ser Leu Ser Ser Leu Asn Met Gly Thr Leu Pro Arg Ser Leu Tyr Ser Thr Ser Pro Arg Gly Thr Met Met Arg Arg Arg Leu Lys Lys Asp Phe Lys Ser Ser Leu Ser Leu Ala Ser Ser Thr Val Gly Leu Ala Gly Gln Val Val His Thr Glu Thr Thr Glu Val Val Leu Thr Ala Asp Pro Val Thr Gly Phe Gly Ile Gln Leu Gln Gly Ser Val Phe Ala Thr Glu Thr Leu Ser Ser Pro Pro Leu Ile Ser Tyr Ile Glu Ala Asp Ser Pro Ala Glu Arg Cys Gly Val Leu Gln Ile Gly Asp Arg Val Met Ala Ile Asn Gly Ile Pro Thr Glu Asp Ser Thr Phe Glu Glu Ala Ser Gln Leu Leu Arg Asp Ser Ser Ile Thr Ser Lys Val Thr Leu Glu Ile Glu Phe Asp Val Ala Glu Ser Val Ile Pro Ser

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Ser Gly Thr Phe His Val Lys Leu Pro Lys Lys His Asn Val Glu Leu
                   310
                                       315
 Gly Ile Thr Ile Ser Ser Pro Ser Ser Arg Lys Pro Gly Asp Pro Leu
               325
                                  330
 Val Ile Ser Asp Ile Lys Lys Gly Ser Val Ala His Arg Thr Gly Thr
            340
                               345
 Leu Glu Leu Gly Asp Lys Leu Leu Ala Ile Asp Asn Ile Arg Leu Asp
                         360
                                              365
 Asn Cys Ser Met Glu Asp Ala Val Gln Ile Leu Gln Gln Cys Glu Asp
                      375
                                         380
 Leu Val Lys Leu Lys Ile Arg Lys Asp Glu Asp Asn Ser Asp Glu Gln
                    390
                                      395
 Glu Ser Ser Gly Ala Ile Ile Tyr Thr Val Glu Leu Lys Arg Tyr Gly
                                 410
Gly Pro Leu Gly Ile Thr Ile Ser Gly Thr Glu Glu Pro Phe Asp Leu
           420
                              425
Xaa Ile Ile Ser Ser Leu Thr Lys Gly Gly Leu Ala Glu Arg Thr Gly
                           440
                                             445
Ala Ile His Ile Gly Asp Arg Ile Leu Ala Ile Asn Ser Ser Ser Leu
                      455
                                          460
Lys Gly Lys Pro Leu Ser Glu Ala Ile His Leu Leu Gln Met Ala Gly
                 470
                                      475
Glu Thr Val Thr Leu Lys Ile Lys Lys Gln Thr Asp Ala Gln Ser Ala
              485
                                  490
Ser Ser Pro Lys Lys Phe Pro Ile Ser Ser His Leu Ser Asp Leu Gly
           500
                             505
                                       510
Asp Val Glu Glu Asp Ser Ser Pro Ala Gln Lys Pro Gly Lys Leu Ser
                          520
                                             525
Asp Met Tyr Pro Ser His Gly Cys Pro Ser Val Asp Ser Ala Val Asp
             535
                                          540
Ser Trp Asp Gly Ser Ala Ile Asp Thr Ser Tyr Gly Thr Glu Gly Thr
               550
                                     555
Ser Phe Gln Ala Ser Gly Tyr Asn Phe Asn Thr Tyr Asp Trp Arg Ser
               565
                                 570
Pro Lys Gln Arg Gly Ser Leu Ser Pro Val Thr Lys Pro Arg Ser Gln
                             585
                                                 590
Thr Tyr Pro Asp Val Gly Leu Ser Tyr Glu Asp Trp Asp Arg Ser Thr
                         600
Ala Ser Gly Phe Ala Gly Ala Ala Asp Ser Ala Glu Thr Glu Gln Glu
                      615
                                         620
Glu Asn Phe Trp Ser Gln Ala Leu Glu Asp Leu Glu Thr Cys Gly Gln
                630
                                     635
Ser Gly Ile Leu Arg Glu Leu Glu Ala Thr Ile Met Ser Gly Ser Thr
               645
                                 650
Met Ser Leu Asn His Glu Ala Pro Thr Pro Arg Ser Pro Ala Gly Ser
                             665
Asp Arg Pro Ser Phe Gln Glu Arg Ser Ser Ser Arg Pro His Tyr Ser
       675
                          680
                                             685
Gln Thr Thr Arg Ser Asn Thr Leu Pro Ser Asp Val Gly Arg Lys Ser
                      695
                                          700
Val Thr Leu Arg Lys Met Lys Gln Glu Ile Lys Glu Ile Met Ser Pro
                  710
                                     715
Thr Pro Val Glu Leu His Lys Val Thr Leu Tyr Lys Asp Ser Asp Met
     · 725
                                 730
Glu Asp Phe Gly Phe Ser Val Ala Asp Gly Leu Leu Glu Lys Gly Val
         740
                              745
Tyr Val Lys Asn Ile Arg Pro Ala Gly Pro Gly Asp Leu Gly Gly Leu
                         760
Lys Pro Tyr Asp Arg Leu Leu Gln Val Asn His Val Arg Thr Arg Asp
                     775
                                         780
Phe Asp Cys Cys Leu Val Val Pro Leu Ile Ala Glu Ser Gly Asn Lys
                 790
                                     795
Leu Asp Leu Val Ile Ser Arg Asn Pro Leu Ala Ser Gln Lys Ser Ile
                                  810
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PCT/US01/03800

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WO 01/57188
Asp Gln Gln Ser Leu Pro Gly Asp Xaa Ser Glu Gln Asn Ser Ala Phe
                               825
Phe Gln Gln Pro Ser His Gly Gly Asn Leu Glu Thr Arg Glu Pro Thr
                            840
                                               845
       835
Asn Thr Leu
    850 851
     <210> 1864
     <211> 179
     <212> PRT
     <213> Homo sapiens
     <221> misc_feature
     <222> (1)...(178)
     <223> Xaa = any amino acid or nothing
     <400> 1864
Leu Glu Lys Gln Gly Val Ser Gly Met Ala Thr Lys Arg Leu Ala Arg
                                    10
 Gln Leu Gly Leu Ile Arg Arg Lys Ser Ile Ala Pro Ala Asn Gly Asn
 Leu Gly Arg Ser Lys Ser Lys Gln Leu Phe Asp Tyr Leu Ile Val Ile
                                                45
        35
                           40
 Asp Phe Glu Ser Thr Cys Trp Asn Asp Gly Lys His His His Ser Gln
                      55
                                           60
 Glu Ile Ile Glu Phe Pro Ala Val Leu Leu Asn Thr Ser Thr Gly Gln
                    70
                                        75
 Ile Asp Ser Glu Phe Gln Ala Tyr Val Gln Pro Gln Glu His Pro Ile
                85
                                    90
 Leu Ser Glu Phe Cys Met Glu Leu Thr Gly Ile Lys Gln Ala Gln Val
           100
                              105
Asp Glu Gly Val Pro Leu Lys Ile Cys Leu Ser Gln Phe Cys Lys Trp 115 120 125
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Ile His Lys Ile Gln Gln Lys Asn Ile Ile Phe Ala Thr Gly Ile

Ser Glu Pro Ser Asp Phe Xaa Ser Lys Ile Met Cys Ile Cys Tyr Leu

Val Arg Xaa Arg Ile Ser Tyr Thr Tyr Xaa Ser Lys His Lys Ser Lys

155

135

150

Gly Cys 178

> <210> 1865 <211> 105 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(103) <223> Xaa = any amino acid or nothing

<400> 1865 Cys Arg Phe Trp Gly Ile Ser Thr His Cys Asp Thr Cys Asp Pro Leu 10 Ser Pro Gln Thr Thr Glu Gly Xaa Xaa Glu Gly Asp Leu Trp Ser Leu 20 25 30 Asp Leu Leu Gly Pro Glu Phe Leu Ala Arg Lys Pro Leu Phe Lys Thr

<210> 1866
<211> 454
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (452)
<223> Xaa = any amino acid or nothing

<400> 1866 Lys Met Leu Cys Gln Lys Glu Ser Asn Tyr Ile Arg Leu Lys Arg Ala Lys Met Asp Lys Ser Met Phe Val Lys Ile Lys Thr Leu Gly Ile Gly Ala Phe Gly Glu Val Cys Leu Ala Arg Lys Val Asp Thr Lys Ala Leu Tyr Ala Thr Lys Thr Leu Arg Lys Lys Asp Val Leu Leu Arg Asn Gln Val Ala His Val Lys Ala Glu Arg Asp Ile Leu Ala Glu Ala Asp Asn Glu Trp Val Val Arg Leu Tyr Tyr Ser Phe Gln Asp Lys Asp Asn Leu Tyr Phe Val Met Asp Tyr Ile Pro Gly Gly Asp Met Met Ser Leu Leu Ile Arg Met Gly Ile Phe Pro Glu Ser Leu Ala Arg Phe Tyr Ile Ala Glu Leu Thr Cys Ala Val Glu Ser Val His Lys Met Gly Phe Ile His Arg Asp Ile Lys Pro Asp Asn Ile Leu Ile Asp Arg Asp Gly His Ile 145 150 155 160 Lys Leu Thr Asp Phe Gly Leu Cys Thr Gly Phe Arg Trp Thr His Asp 165 170 175 Ser Lys Tyr Tyr Gln Ser Gly Asp His Pro Arg Gln Asp Ser Met Asp Phe Ser Asn Glu Trp Gly Asp Pro Ser Ser Cys Arg Cys Gly Asp Arg Leu Lys Pro Leu Glu Arg Arg Ala Ala Arg Gln His Gln Arg Cys Leu Ala His Ser Leu Val Gly Thr Pro Asn Tyr Ile Ala Pro Glu Val Leu Leu Arg Thr Gly Tyr Thr Gln Leu Cys Asp Trp Trp Ser Val Gly Val Ile Leu Phe Glu Met Leu Val Gly Gln Pro Pro Phe Leu Ala Gln Thr Pro Leu Glu Thr Gln Met Lys Val Ile Asn Trp Gln Thr Ser Leu His Ile Pro Pro Gln Ala Lys Leu Ser Pro Glu Ala Ser Asp Leu Ile Ile Lys Leu Cys Arg Gly Pro Glu Asp Arg Leu Gly Lys Asn Gly Ala Asp Glu Ile Lys Ala His Pro Ile Phe Xaa Asn Gln Phe Asp Phe Ser Gln 

Xaa Pro Glu Asp Ser Arg Ser Ala Phe Lys Gln Phe Pro Xaa Asn His 345 Thr Thr Pro Thr Asp Thr Ser Asn Phe Asp Pro Val Asp Pro Asp Lys 355 360 365 Leu Trp Ser Asp Asp Asn Glu Glu Glu Asn Val Asn Asp Thr Leu Asn 370 375 380 Gly Trp Tyr Lys Asn Gly Lys His Pro Glu His Ala Phe Tyr Glu Phe 390 395 Thr Phe Arg Arg Phe Phe Asp Asp Asn Gly Tyr Pro Tyr Asn Tyr Pro 405 410 415 Lys Pro Ile Glu Tyr Glu Tyr Ile Asn Ser Gln Gly Ser Glu Gln Gln 420 425 430 Ser Asp Glu Asp Asp Gln Asn Thr Gly Ser Glu Ile Lys Asn Arg Asp 440 Leu Val Tyr Val 450 452

<210> 1867

<211> 114

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(111)

<223> Xaa = any amino acid or nothing

<400> 1867 Phe Phe Lys Lys Phe Thr Gln Ser Leu Gly Phe Leu Leu Phe Ser 10 Phe Ser Phe Leu Phe Ser Cys Phe Phe Phe Phe His Phe Val Leu Phe 25 Cys Tyr Val Phe Leu Asp Arg Val Pro Leu Cys His Pro Gly Trp Ser 35 40 Ala Val Val Gln Ser Gln Val Thr Val Asn Leu Pro Pro Ser Trp Asp 55 60 Xaa Arg Cys Arg Pro Pro His Leu Ala Asn Leu Cys Asn Phe Cys Arg 70 75 Asp Ser Phe Thr Thr Leu Pro Arg Leu Val Leu Asn Thr Trp Ala Gln

85 90 Ala Ile Phe Gln Pro Gln Pro Pro Lys Val Leu Gly Leu Gln Val

<210> 1868

<211> 105

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(103)

<223> Xaa = any amino acid or nothing

<400> 1868

Ser Pro Glu Met Glu Ser His Pro Ile Thr Gln Ala Gly Val Gln Trp 10 His His Leu Ser Ser Leu Gln Pro Leu Pro Pro Gly Phe Lys Xaa Phe 20 25 Ser Cys Phe Ser Leu Pro Glu Xaa Leu Gly Tyr Arg His Val Pro Pro 35 40

Cys Leu Ala Asn Ser Val Phe Ser Val Glu Met Gly Phe Leu His Val
50
Gly Gln Ala Gly Leu Glu Leu Leu Thr Ser Gly Asp Leu Pro Ala Leu
65
Ala Ser Gln Ser Ala Gly Ile Thr Gly Ser His Arg Ala Arg Pro Glu
85
Asn Gly Phe Glu Asn Ile Phe
100
103

<210> 1869 <211> 214 <212> PRT <213> Homo sapiens

(220) Hollo Baptell

<400> 1869 Asn Gln Gly Leu Arg His Val Gly Leu Cys Arg Thr Cys Leu Val Asn 10 Gln Met Phe Ala Ser Ser Ile Leu Gly Lys Ser His His Ser Leu 20 25 30 Ile Ser Ile Asn Gln Gly His Asn Ala Leu Trp Lys Ala Ala Gly Pro 35 40 45 Leu Pro Leu Lys Ala Gly Tyr Cys Gln Ser Phe Ser Pro Cys Asp Ser 55 Leu Lys Tyr Gly Ser Trp Asp Glu Lys Asp Leu Thr Val Pro Gln Arg 70 75 Asp Thr His Lys Arg Ser Val Leu Arg Trp Ile Ser Gln Arg Gly Lys 85 90 Leu Ala Val Glu Met Glu Glu Gly His Cys Leu Leu Leu Pro Leu Gly
100 105 110 105 110 Thr Glu Cys Leu Gly Ile Lys Pro Ile Val His Leu Phe Ser Ser Glu 115 120 125 120 Met Gly Glu Asn Arg Pro Met Val Gly Ala Arg His Val Tyr Ser Asn 135 140 Ala Ala Leu Leu Ser Phe Thr Pro Leu Arg Cys Leu Gly Gly Glu Lys 150 155 His Lys Ser Gly Leu His Ala Arg Pro Val Ile Val Pro Ser Leu Glu 165 170 175 Leu His Tyr Asp Met Asp Ser Ile Ala His Val Phe Ala Asp Leu Leu 180 185 190 Leu Ile Ile Thr Leu Pro Ser Tyr Tyr Ile Pro Phe Cys 200

<210> 1870 <211> 63 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (61) <223> Xaa = any amino acid or nothing

Leu Pro Pro Arg Pro Pro Lys Val Leu Gly Leu Gln Thr 50 55 60 61

<210> 1871
<211> 57
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(56)
<223> Xaa = any amino acid or nothing

<211> 125
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(125)
<223> Xaa = any amino acid or nothing

<210> 1872

<400> 1872 Gln Gly Ile Ala Leu Leu Thr Arg Met Gly Glu Ser Val Lys His Val 5 10 Thr Gly Gly Tyr Lys Leu Arg Thr Arg Pro Leu Glu Phe Ala Ala Ile 20 Gly Asp Tyr Leu Asp Thr Phe Ala Leu Lys Leu Gly Thr Ile Asp Arg 40 45 35 Ile Ala Glm Arg Ile Ile Lys Glu Glu Ile Glu Tyr Leu Val Glu Leu 55 60 Arg Glu Tyr Gly Pro Val Tyr Ser Thr Trp Ser Ala Leu Glu Gly Glu 70 75 Leu Ala Glu Pro Leu Glu Gly Val Ser Ala Cys Ile Gly Asn Cys Ser 90 85 Thr Ala Leu Xaa Glu Leu Thr Asp Asp Met Thr Glu Asp Phe Leu Phe 105 100 Val Leu Arg Glu Tyr Ile Leu Tyr Ser Asp Ser Met Lys 120

<210> 1873
<211> 110
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(107)

## <223> Xaa = any amino acid or nothing

<400> 1873 Glu Arg Val Ile His Asn Gln Ile Gln Gln Ala Gln Arg Ser Pro His 10 Ile Phe Asn Ala Arg Arg Ser Ser Pro Arg Pro Asn Ile Val Glu Leu 20 25 Pro Lys Val Lys Glu Val Cys Lys Thr Ser Lys Sér Gly Gln Val Ile 35 40 45 Tyr Lys Gly Val Ser Ile Arg Leu Arg Ala Asn Phe Leu Ala Glu Pro 50 55 60 Leu Xaa Asn Arg Arg Glu Trp Asp Glu Ala Ile Lys Val Leu Lys Glu 70 Lys Gln Phe Leu Ser Lys Met Val Tyr Pro Ala Asn Leu Ser Phe Gly 85 90 Asn Glu Gly Asp Ile Thr Ser Phe Pro Ala Lys 100 105 107

<211> 108 <212> PRT <213> Homo sapiens <221> misc feature

<210> 1874

100

<222> (1)...(107)
<223> Xaa = any amino acid or nothing

<400> 1874 Phe Phe Leu Arg Trp Ser Leu Asp Ser Val Ala Gln Ala Gly Val Lys 5 10 Trp Cys Asn Leu Gly Ser Leu Gln Ala Pro Pro Pro Gly Phe Thr Pro 20 25 Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg His Pro Pro 35 40 Pro Arg Leu Ala Asn Xaa Leu Thr Asn Phe Leu Cys Phe Xaa Xaa Arg 55 60 Gln Gly Phe Thr Val Leu Ala Arg Met Val Leu Ile Ser Xaa Pro His 65 70 75 80 Asp Leu Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Leu Ser 85 90 His Cys Ser Trp Pro Thr Ser Ser Ile Leu Ser

<210> 1875
<211> 146
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(144)
<223> Xaa = any amino acid or nothing

Pro Arg Leu Lys Gln Phe Ser His Leu Ser Pro Pro Ser Ile Trp Asp 40 Tyr Arg Arg Val Pro Pro Cys Leu Val Asn Phe Ser Ile Phe Phe Val 55 60 Glu Thr Gly Ser Cys Gln Pro Cys Leu Gln Leu Leu Gly Ser Ser Asn 70 75 Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Ala Gly Ile Ser His 85 90 Gln Gly Gln Pro Glu Xaa Ser Phe Asp Ile Arg Phe Ala Cys Val Ile 100 105 110 Ala Ala Leu Arg Glu Thr Phe Gln Cys Leu Cys Ser Ala Ser Arg Val 115 120 125 Asn Asn Lys Ile Ile Asn Arg Pro Thr His Pro Val Glu Ser Ser Phe 135

<210> 1876

<211> 88

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(87)

<223> Xaa = any amino acid or nothing

Ser Leu Ser Phe Arg Leu Met

85 87

<210> 1877

<211> 121

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(119)

<223> Xaa = any amino acid or nothing

<400> 1877

Gly Pro Leu Xaa Cys His Pro Thr Ser Lys Pro Ala Leu Val Phe Ser 65 70 75 80

Leu Glu Gln Gly Lys Glu Ser Cys Phe Ser Pro Ala Thr Gly Ser Ser 90 95

Leu Ser Arg Asn Asp Trp Arg Ala Gly Trp Ile Gly Tyr Leu Glu Leu 100 105 110

Arg Arg Tyr Thr Tyr Leu Ser 119

<210> 1878 <211> 311 <212> PRT <213> Homo sapiens

<213> Homo sapiens

<400> 1878 Gly Thr Ser Glu Leu Leu Cys Ile Gln Arg Trp Asn Trp Gly Pro Ala · 10 Phe Pro Pro Arg Pro Gly Leu Ala Leu Ala Pro Thr Leu Gln Leu Leu 20 25 Val Glu Met Gly Ser Ala Lys Ser Val Pro Val Thr Pro Ala Arg Pro 45 35 40 Pro Pro His Asn Lys His Leu Ala Arg Val Ala Asp Pro Arg Ser Pro 55 Ser Ala Gly Ile Leu Arg Thr Pro Ile Gln Val Glu Ser Ser Pro Gln 70 75 Pro Gly Leu Pro Ala Gly Glu Gln Leu Glu Gly Leu Lys His Ala Gln 85 90 Asp Ser Asp Pro Arg Ser Pro Thr Leu Gly Ile Ala Arg Thr Pro Met 100 105 110 Lys Thr Ser Ser Gly Asp Pro Pro Ser Pro Leu Val Lys Gln Leu Ser 115 120 125 Glu Val Phe Glu Thr Glu Asp Ser Lys Ser Asn Leu Pro Pro Glu Pro 135 140 Val Leu Pro Pro Glu Ala Pro Leu Ser Ser Glu Leu Asp Leu Pro Leu 150 155 Gly Thr Gln Leu Ser Val Glu Glu Gln Met Pro Pro Trp Asn Gln Thr 165 170 175 Glu Phe Pro Ser Lys Gln Val Phe Ser Lys Glu Glu Ala Arg Gln Pro 185 180 Thr Glu Thr Pro Val Ala Ser Gln Ser Ser Asp Lys Pro Ser Arg Asp 200 205 Pro Glu Thr Pro Arg Ser Ser Gly Ser Met Arg Asn Arg Trp Lys Pro 215 220 Asn Ser Ser Lys Val Leu Gly Lys Ser Pro Leu His Pro Ser Cys Gln 230 235 Asp Asp Asn Ser Pro Gly Thr Leu Thr Leu Arg Gln Gly Lys Ala Ala 245 250 Phe Lys Pro Leu Ser Glu Asn Val Ser Glu Leu Lys Glu Gly Ala Ile 265 Leu Gly Thr Gly Arg Leu Leu Lys Thr Glu Gly Arg Ala Trp Glu Gln 285 280 Gly Gln Asp His Asp Lys Glu Asn Gln His Phe Pro Leu Val Glu Ser 295 300

<210> 1879 <211> 123 <212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(122)

<223> Xaa = any amino acid or nothing

<400> 1879 Lys Asp Met Val Leu Ile Met Glu Met Gln Ser Met Ile Thr Met Lys 10 Cys Pro Gln Tyr Leu Xaa Glu Xaa Arg Lys Ile Pro Asp Ile Thr Lys 25 20 Cys Trp Xaa Gly Cys Gly Ser Thr Gly Ile Leu Ile Phe Cys Trp Ser Xaa Pro Leu Xaa Lys Thr Ile Xaa Gln Pro Arg Xaa Phe Lys Gln Ile 55 Xaa Thr Ile Leu Thr Ile Ile Tyr Ser Ile Met Xaa Glu His Thr Phe 70 75 His Asn Ala Gly Val Xaa Leu Ser Asp Ile Tyr Pro Arg Phe Met Lys 85 90 Gly Tyr Val His Thr Glu Ile Cys Thr Xaa Met Phe Ile Ala Val Leu 100 105 Phe Val Val Lys Thr Trp Lys Gln Phe 120

<210> 1880

<211> 120

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(119)

<223> Xaa = any amino acid or nothing

<400> 1880

Leu Leu Glu Val Asn Gly Asn Thr Ile Val Thr Val Phe Thr Lys Ala 5 10 Gln Asn Lys Lys Asn Lys Gly Ser Arg Ser Ile Leu Phe Lys Gln Leu 20 Arg Lys Tyr Gly Ser Arg Ile Asn Leu Leu Lys Ser Lys His Asp Lys 35 40 Asn Ile Cys Thr Glu Asn Tyr Lys Thr Xaa Met Lys Glu Ile Glu Ala 50 60 55 Asp Thr Asp Lys Trp Lys Asp Ile Leu Cys Ser Trp Ile Arg Arg Ile 70 75 His Met Lys Asp Ile Leu Cys Ser Trp Ile Gly Arg Thr His Val Val 90 Lys Ile Ser Ile Leu Pro Lys Val Asn Tyr Arg Phe Tyr Leu Ile Ser 100 105 Ile Lys Ile Ile Met Ala Ile 115

<210> 1881

<211> 102

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(100)

## <223> Xaa = any amino acid or nothing

<400> 1881 Thr Gln Gly Thr Glu Glu Ile Tyr Lys Ile Ser Ser Cys Glu Trp Val 10 Gln Ala Ser Phe Ser Thr Pro Leu Ile Thr Leu His Asp Phe Lys Ile 20 25 Tyr His Lys Ala Thr Val Ile Lys Met Val Trp Tyr Trp His Arg Gln 40 45 35 Xaa Lys Phe Ser Lys Asn Arg Ile Glu Ser Ser Glu Ile Glu Pro His 50 55 60 Ile Tyr Asp Gln Phe Ile Phe Asp Lys Gly Glu Lys Ile Ile Gln Glu 70 75 Lys Gly Asn Ser Phe Phe Asn Asn Met Cys Trp Lys Asn Trp Ile Phe 90 85 Thr Xaa Lys Arg 100

<210> 1882
<211> 117
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1) ... (116)
<223> Xaa = any amino acid or nothing

<400> 1882 Asn Asp Leu Leu Glu Asn Phe Lys Phe Trp Glu Xaa Phe Lys Glu Xaa 1 5 10 Leu Glu Asn Ile Asn Gly Thr Val Thr Glu Lys Glu Thr Gly Gly Val 20 25 30 Tyr Lys Glu Leu Ser Ser Pro Lys Tyr Ser Gly Thr Arg Gln Phe Tyr 35 40 Gly Gln Thr Ile Ser Asn Phe Pro Gly Lys Ile Ile Ser Met Val Tyr 55 60 Lys Leu Phe Gln Asn Thr Glu Thr Glu Gly Arg His Pro Ile Ser Leu 65 75 70 Tyr Glu Phe Arg Ile Thr Leu Ile Thr Ile Pro Asn Lys Asp Asn Ile 85 90 Tyr Leu Gln Ile Trp Met Pro Val Ser Leu Met Asn Ile Val Thr Leu 105 Lys Cys Pro Thr 115 116

<210> 1883
<211> 124
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(119)
<223> Xaa = any amino acid or nothing

<400> 1883
Pro Ile Arg Lys Phe Thr Lys Val Ala Gly Xaa Lys Ser Asn Thr Pro
1 5 10 15

<210> 1884 <211> 643 <212> PRT <213> Homo sapiens

<400> 1884 Ile Ile Asp Ser Ser Thr Arg Arg Met Glu Ser Glu Arg Ser Pro Leu . 10 Tyr Arg Gln Leu Ile Asp Leu Gly Tyr Leu Ser Ser His Trp Asn 25 20 Cys Gly Ala Pro Gly Gln Asp Thr Lys Ala Gln Ser Met Leu Val Glu 40 Gln Ser Glu Lys Leu Arg His Leu Ser Thr Phe Ser His Gln Val Leu 55 Gln Thr Arg Leu Val Asp Ala Ala Lys Ala Leu Asn Leu Val His Cys 70 75 His Cys Leu Asp Ile Phe Ile Asn Gln Ala Phe Asp Met Gln Arg Asp 90 85 Leu Gln Ile Thr Pro Lys Arg Leu Glu Tyr Thr Arg Lys Lys Glu Asn 105 Glu Leu Tyr Glu Ser Leu Met Asn Ile Ala Asn Arg Lys Gln Glu Glu 120 Met Lys Asp Met Ile Val Glu Thr Leu Asn Thr Met Lys Glu Glu Leu 135 140 Leu Asp Asp Ala Thr Asn Met Glu Phe Lys Asp Val Ile Val Pro Glu 150 155 Asn Gly Glu Pro Val Gly Thr Arg Glu Ile Lys Cys Cys Ile Arg Gln 170 165 Ile Gln Glu Leu Ile Ile Ser Arg Leu Asn Gln Ala Val Ala Asn Lys 185 180 190 Leu Ile Ser Ser Val Asp Tyr Leu Arg Glu Ser Phe Val Gly Thr Leu 195 200 205 Glu Arg Cys Leu Gln Ser Leu Glu Lys Ser Gln Asp Val Ser Val His 215 220 Ile Thr Ser Asn Tyr Leu Lys Gln Ile Leu Asn Ala Ala Tyr His Val 230 235 Glu Val Thr Phe His Ser Gly Ser Ser Val Thr Arg Met Leu Trp Glu 250 245 Gln Ile Lys Gln Ile Ile Gln Arg Ile Thr Trp Val Ser Pro Pro Ala 265 Ile Thr Leu Glu Trp Lys Arg Lys Val Ala Gln Glu Ala Ile Glu Ser 280 285 Leu Ser Ala Ser Lys Leu Ala Lys Ser Ile Cys Ser Gln Phe Arg Thr 290 295 300 Arg Leu Asn Ser Ser His Glu Ala Phe Ala Ala Ser Leu Arg Gln Leu 315

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Glu Ala Gly His Ser Gly Arg Leu Glu Lys Thr Glu Asp Leu Trp Leu
             325
                              330
Arg Val Arg Lys Asp His Ala Pro Arg Leu Ala Arg Leu Ser Leu Glu
          340
                          345
                                            350
Ser Arg Ser Leu Gln Asp Val Leu Leu His Arg Lys Pro Lys Leu Gly
      355
                        360
Gln Glu Leu Gly Arg Gly Gln Tyr Gly Val Val Tyr Leu Cys Asp Asn
                  375
                                   380
Trp Gly Gly His Phe Pro Cys Ala Leu Lys Ser Val Val Pro Pro Asp
          390
                       395
Glu Lys His Trp Asn Asp Leu Ala Leu Glu Phe His Tyr Met Arg Ser
             405
                            410
Leu Pro Lys His Glu Arg Leu Val Asp Leu His Gly Ser Val Ile Asp
                          425
Tyr Asn Tyr Gly Gly Ser Ser Ile Ala Val Leu Leu Ile Met Glu
     435
                    440
                               445
Arg Leu His Arg Asp Leu Tyr Thr Gly Leu Lys Ala Gly Leu Thr Leu
                 455
Glu Thr Arg Leu Gln Ile Ala Leu Asp Val Val Glu Gly Ile Arg Phe
                470
                                475
Leu His Ser Gln Gly Leu Val His Arg Asp Ile Lys Leu Lys Asn Val
            485 490
Leu Leu Asp Lys Gln Asn Arg Ala Lys Ile Thr Asp Leu Gly Phe Cys
         500 505 510
Lys Pro Glu Ala Met Met Ser Gly Ser Ile Val Gly Thr Pro Ile His
     515
                       520
Met Ala Pro Glu Leu Phe Thr Gly Lys Tyr Asp Asn Ser Val Asp Val
                   535
                                     540
Tyr Ala Phe Gly Ile Leu Phe Trp Tyr Ile Cys Ser Gly Ser Val Lys
              550
                                555
Leu Pro Glu Ala Phe Glu Arg Cys Ala Ser Lys Asp His Leu Trp Asn
          565
                                      575
                            570
Asn Val Arg Arg Gly Ala Arg Pro Glu Arg Leu Pro Val Phe Asp Glu
         580
                          585
Glu Cys Trp Gln Leu Met Glu Ala Cys Trp Asp Gly Asp Pro Leu Lys
                       600
                                        605
Arg Pro Leu Gly Ile Val Gln Pro Met Leu Gln Gly Ile Met Asn
                  615
                            620
Arg Leu Cys Lys Ser Asn Ser Glu Gln Pro Asn Arg Gly Leu Asp Asp
        630
                         635
Ser Thr
   642
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<210> 1885 <211> 140

<212> PRT

<213> Homo sapiens

<400> 1885

 Ser Leu Gln Lys Val Thr Glu Leu Thr Arg Lys Pro Val Cys Ile Ile

 100
 105
 110

 Phe Lys Gly Thr Ile Leu Trp Arg Ile Thr Asp Ser Ile Trp Met Lys
 125

 His Asn Arg Lys Arg Ile Trp Leu Arg Ala
 135*
 138

<210> 1886 <211> 87 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(87) <223> Xaa = any amino acid or nothing

<400> 1886 Asp His Gln Lys Xaa Lys Asn Ile Pro Cys Ser Trp Ile Gly Arg Ile 10 Asn Ile Val Lys Met Ser Ile Leu Pro Lys Ala Ile Tyr Arg Phe Ser 20 25 30 Ala Ile Pro Ile Lys Ile Pro Met Thr Phe Phe Thr Glu Ile Xaa Ser 40 Xaa Asn Val Tyr Arg Thr Thr Lys Thr Gln Glu Xaa Ala Lys Ala Ile 55 60 Leu Ser Lys Lys Glu Gln Asn Leu Glu Glu Ser His Tyr Leu Asp Phe 70 Lys Xaa Tyr Tyr Arg Ala Val 85

<210> 1887 <211> 76 <212> PRT <213> Homo sapiens

<210> 1888 <211> 57 <212> PRT <213> Homo sapiens

<400> 1888
Ile Arg His Ile Pro Leu Lys Ile Arg Ser Val Val Ser His Leu Lys
1 5 10 15

Cys Phe Tyr Lys Phe Ile Leu Thr Phe Phe Phe Ala Gly Cys Ser Gln
20 25 30

Pro Leu Val Pro Arg Glu Asn Ile Thr Ala Trp Met Asn Ala Ile Gly
35 40 45

Leu Ile Ile Thr Ala Leu Pro Val Ser
50 55

<210> 1889 <211> 98 <212> PRT <213> Homo sapiens <221> misc feature

<222> (1)...(87)
<223> Xaa = any amino acid or nothing

<400> 1889 Ala Ser Arg Pro Trp Gly His Ser Tyr Pro Xaa Phe Asn Gln Glu 1 5 10 10 Val Asp Thr Leu Lys Arg Pro Ile Ala Ser Ser Glu Ile Xaa Met Met 20 25 Ile Xaa Lys Phe Ala Thr Lys Lys Ser Pro Gly Pro Tyr Arg Phe Thr 35 40 45 Ala Glu Phe Ser His Thr Phe Lys Glu Asp Leu Val Pro Ile Leu Trp 55 Pro Leu Phe Pro Lys Ile Tyr Arg Glu Gly Thr Leu Pro His Ser Phe 70 Tyr Glu Ala Ser Ile Thr Leu 85 87

<210> 1890 <211> 622 <212> PRT <213> Homo sapiens

<400> 1890

Pro Glu Pro Gly Ala Gly Arg Ala Ala Thr Pro Trp Gly Pro Leu Phe . 1 10 Trp Arg Gly Arg Gly Ser Gly Arg Cys Glu Lys Ala Ala Glu Ala Ala Leu Gly Asp Phe Leu Gly Leu His Arg Arg Thr Gln Gln Pro Ala Val 35 40 45 Asp Arg Leu Leu Ser Asp Ala Ser Ala Gln Trp Arg Val Arg Gly His 55 60 Gly Gly Val Arg Glu Ser Gly Arg Ala Pro Gln Gln Pro Gly Arg Arg 70 75 Arg Gly Arg Arg Pro Arg Lys Arg Pro Arg Gly Arg Trp Arg Arg Glu 85 90 95 85 90 Gly Cys Gly Ala Gly Gly Arg Gly Val Cys Val Ala Ala Trp Ser Gln 105 110 Arg Ser Ile Ala Gly Asn Asn Asp Tyr Arg Leu Phe His Lys Met Ser · 115 120 125 Asn Ser His Pro Leu Arg Pro Phe Thr Ala Val Gly Glu Ile Asp His 130 135 140 Val His Ile Leu Ser Glu His Ile Gly Ala Leu Leu Ile Gly Glu Glu 150 155 . Tyr Gly Asp Val Thr Phe Val Val Glu Lys Lys Arg Phe Pro Ala His 170

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Arg Val Ile Leu Ala Ala Arg Cys Gln Tyr Phe Arg Ala Leu Leu Tyr
                             185
Gly Gly Met Arg Glu Ser Gln Pro Glu Ala Glu Ile Pro Leu Gln Asp
                        200
Thr Thr Ala Glu Ala Phe Thr Met Leu Leu Lys Tyr Ile Tyr Thr Gly
                    215
                                       220
Arg Ala Thr Leu Thr Asp Glu Lys Glu Glu Val Leu Leu Asp Phe Leu
                                    235
Ser Leu Ala His Lys Tyr Gly Phe Pro Glu Leu Glu Asp Ser Thr Ser
                    250
             245
Glu Tyr Leu Cys Thr Ile Leu Asn Ile Gln Asn Val Cys Met Thr Phe
                  265
         260
Asp Val Ala Ser Leu Tyr Ser Leu Pro Lys Leu Thr Cys Met Cys Cys
                         280
Met Phe Met Asp Arg Asn Ala Gln Glu Val Leu Ser Ser Glu Gly Phe
                   295
                                      300
Leu Ser Leu Ser Lys Thr Ala Leu Leu Asn Ile Val Leu Arg Asp Ser
                 310
                                   315
Phe Ala Ala Pro Glu Lys Asp Ile Phe Leu Ala Leu Leu Asn Trp Cys
              325
                                330
Lys His Asn Ser Lys Glu Asn His Ala Glu Ile Met Gln Ala Val Arg
         340
                            345
                                              350
Leu Pro Leu Met Ser Leu Thr Glu Leu Leu Asn Val Val Arg Pro Ser
              360
                                 365
Gly Leu Leu Ser Pro Asp Ala Ile Leu Asp Ala Ile Lys Val Arg Ser
                    375
                                       380
Glu Ser Arg Asp Met Asp Leu Asn Tyr Arg Gly Met Leu Ile Pro Glu
                 390
                                   395
Glu Asn Ile Ala Thr Met Lys Tyr Gly Ala Gln Val Val Lys Gly Glu
              405
                                410
Leu Lys Ser Ala Leu Leu Asp Gly Asp Thr Gln Asn Tyr Asp Leu Asp
          420
                            425
His Gly Phe Ser Arg His Pro Ile Asp Asp Asp Cys Arg Ser Gly Ile
                        440
Glu Ile Lys Leu Gly Gln Pro Ser Ile Ile Asn His Val Arg Ile Leu
                     455
                                       460
Leu Trp Asp Arg Asp Ser Arg Ser Tyr Ser Tyr Phe Ile Glu Val Ser
                 470
                                  475
Met Asp Glu Leu Asp Trp Val Arg Val Ile Asp His Ser Gln Tyr Leu
              485
                             490
Cys Arg Ser Trp Gln Lys Leu Tyr Phe Pro Ala Arg Val Cys Arg Tyr
                             505
Ile Arg Ile Val Gly Thr His Asn Thr Val Asn Lys Ile Phe His Ile
                        520
                                          525
Val Ala Phe Glu Cys Met Phe Thr Asn Lys Thr Phe Thr Leu Glu Lys
                    535
                                       540
Gly Leu Ile Val Pro Met Glu Asn Val Ala Thr Ile Ala Asp Cys Ala
                 550
                                    555
Ser Val Ile Glu Gly Val Ser Arg Ser Arg Asn Ala Leu Leu Asn Gly
                               570
             565
Asp Thr Lys Asn Tyr Asp Trp Asp Ser Gly Tyr Thr Cys His Gln Leu
         580
                             585
Gly Ser Gly Ala Ile Val Val Gln Leu Ala Gln Pro Tyr Met Ile Gly
                         600
Ser Ile Arg Val Leu Leu Trp Asp Cys Asp Asp Arg Ser Tyr
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<210> 1891

<211> 166

<212> PRT

<213> Homo sapiens

<400> 1891 Gly Thr Leu Gly Tyr Pro Asn Gly Ala Arg Gly Gln Pro Gln Asp Asn Phe Phe Ala His Gln Val Ser His His Pro Pro Ile Ser Ala Cys His 20 25 Ala Glu Ser Glu Asn Phe Ala Phe Trp Gln Asp Met Lys Trp Lys Asn 35 40 45 Lys Phe Trp Gly Lys Ser Leu Glu Ile Val Pro Val Gly Thr Val Asn 55 Val Ser Leu Pro Arg Phe Gly Asp His Phe Glu Trp Asn Lys Val Thr 75 Ser Cys Ile His Asn Val Leu Ser Gly Gln Arg Trp Ile Glu His Tyr 85 90 95 Gly Glu Val Leu Ile Arg Asn Thr Gln Asp Ser Ser Cys His Cys Lys 100 105 . 110 Ile Thr Phe Cys Lys Ala Lys Tyr Trp Ser Ser Asn Val His Glu Val 120 125 Gln Gly Ala Val Leu Ser Arg Ser Gly Arg Val Leu His Arg Leu Phe 135 140 Gly Lys Trp His Glu Gly Leu Tyr Arg Gly Pro Thr Pro Gly Gly Gln 150 145 155 Cys Ile Trp Lys Pro 165

<210> 1892 <211> 130 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(130) <223> Xaa = any amino acid or nothing

<400> 1892 Ser Val Asp Ala Tyr Val Cys Asn Asp Ile Val Phe Ser Tyr Arg Thr 10 Thr Ile Thr Leu Leu Glu Gly Ala Kaa Leu Thr His Arg Tyr Val Ala 20 Gln Asp Pro Lys Gln Gly Gln Leu Arg Ser Leu His Leu Thr Cys Asp 40 Ser Ala Pro Ala Gly Ser Gln Gly Thr Trp Ser Thr Ser Cys Arg Ile 55 Asn His Leu Ile Phe Arg Gly Gly Ala Gln Ile Thr Phe Leu Ala Thr 70 75 Phe Asp Asp Ser Pro Lys Ala Val Leu Gly Asp Arg Leu Leu Leu Thr 90 Ala Asn Val Ser Ser Glu Asn Asn Thr Pro Arg Thr Ser Lys Thr Thr 100 105 110 Phe Gln Leu Glu Leu Ser Val Lys Asp Ala Val Tyr Thr Val Val Ser 120 Ser His 130

<210> 1893 <211> 224 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(222) <223> Xaa = any amino acid or nothing

<400> 1893 Thr Ile Ser Tyr Pro Gln Cys Leu Thr Gln Met Tyr Phe Leu Ile Ser 10 Phe Ala Asn Val Asp Thr Phe Leu Leu Pro Ile Met Ala Leu Asp His 25 Tyr Val Ala Ile Cys Ser Ala Leu Gln Xaa Cys Ser Ile Ile Thr Pro 40 Glu Leu Cys Gln Gly Leu Pro Val Leu Ala Xaa Ala Gly Ser Ser Leu 55 Ile Ser Pro Val His Thr Val Ile Met Ser Arg Leu Ala Phe Cys Ser 70 75 Ser Ala Gln Ile Ser His Phe Tyr Arg Asp Ala Tyr Leu Leu Met Lys 85 90 Ile Ala Cys Ser His Thr Xaa Asn Gln His Val Phe Leu Gly Ala Val 100 105 Val Leu Phe Leu Ala Pro Cys Ala Leu Ile Leu Val Ser Tyr Ile Arg 120 125 Ile Ala Ala Ala Ile Leu Arg Ile Pro Ser Pro Thr Arg Arg Arg Lys 135 140 Ala Cys Ser Ile Cys Ser Ser His Leu Ser Leu Val Thr Leu Phe Tyr 150 155 Gly Thr Val Leu Gly Ile Cys Ile Xaa Pro Pro Asp Ser Phe Ser Ala 165 170 175 Gln Asp Ala Ile Ala Thr Ile Met Tyr Thr Val Val Thr Ser Met Leu 185 Asn Pro Phe Ile Tyr Ser Leu Met Asn Lys Glu Val Gln Glu Ala Val 195 200 Arg Arg Leu Phe Ser Arg Gly Ser His Ser Ser Trp Cys Trp 215 220 222 .

<210> 1894

<211> 179

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(178)

<223> Xaa = any amino acid or nothing

<400> 1894

Leu Leu Tyr Ala Gln Ala Gly Val Gln Xaa Leu Asn Leu Ser Ser Leu 5 10 Gln Pro Gln Pro Ala Gly Leu Lys Gln Ser Ser His Pro Ser Leu Pro 25 Ser Ser Trp Asp Tyr Arg Tyr Ser Thr Pro His Pro Ala Asn Phe Phe 40 Val Glu Met Glu Phe His His Val Ala Gln Ala Gly Leu Glu Leu Leu 55 Gly Ser Gly Asp Leu Pro Thr Ser Thr Ser His Ser Ala Gly Ile Thr 70 75 Gly Val Ser His His Ala Pro Pro Arg Leu Ile Ser Ser Glu Gly Ser 90 85 Leu Leu Gly His Leu Leu Cys Leu Pro Met Val Phe Pro Leu Leu Cys 105 Val Phe Val Leu Ile Ser Ser Ser Leu Ala Gly Glu Glu Ala Ala Gly 120

<210> 1895 <211> 137 <212> PRT <213> Homo sapiens

<400> 1895 His Pro Leu Gly Leu Gly Leu Val Pro Ser Glu Ile Phe Ser Pro Gln 1 5 10 15 Asp Lys Lys Ala Ala Asp Gly Ser Ile Leu Ala Pro Ala Arg Gly Glu 20 25 Asp Leu Glu Ala Gly Leu Lys Gly Ser Phe Met Asp Gly Arg Leu Gln 40 Ala Ser Val Ser Val Phe Arg Ile Gln Arg Val Gly Ser Ala Met Gln 55 60 Asp Thr Ala Ser Ala Met Pro Cys Leu Pro Tyr Tyr, Pro Thr Ser His 70 Cys Phe Met Ala Gly Gly Lys Ser Arg Ser Gln Gly Trp Glu Leu Glu 85 90 Leu Ser Gly Glu Pro Ala Pro Gly Trp Gln Val Leu Ala Gly Tyr Thr 105 110 Tyr Thr Gln Ala Arg Tyr Leu Arg Asp Ala Ser Glu Ala Asn Val Gly 120 Gln Pro Leu Arg Pro Val Asp Pro Arg 135 137

<210> 1896 <211> 118 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(115) <223> Xaa = any amino acid or nothing

<400> 1896 Phe Phe Gln Val Phe Ile Phe Leu Phe Leu Ile Phe Phe Lys Thr Glu 10 Phe His Ser Cys Cys Pro Gly Ala Val Gln Trp His Asp Leu Asp Ser 20 25 Leu Gln Pro Pro Pro Pro Arg Phe Lys Gly Phe Ser Cys Leu Ser Leu 40 Pro Ser Ser Trp Asp Tyr Arg His Ala Pro Ala His Pro Ala Asn Phe 55 60 Val Phe Leu Val Glu Thr Gly Phe Leu His Val Gly Gln Ala Ser Leu 70 75 Glu Leu Pro Thr Ser Gly Asp Thr Pro Ala Ser Ala Ser Gln Ser Ala 90 Gly Ile Thr Gly Val Ser His His Ala Xaa Pro Arg Ala Ser Gly Arg 105

Arg Cys Trp 115

<210> 1897
<211> 1021
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(1008)

<223> Kaa = any amino acid or nothing

<400> 1897 Ala Gly Pro Asp Gly Leu Ala Ala Pro Ala Ser Cys Gln Gly Ala Arg Gly Gln Thr Arg Val Pro Gly Ala Phe Ser Trp Leu Ala Pro Gly Ser 25 20 His His Ala Ser Glu Gly Leu Ala Pro Gly Val Pro Pro Ala Gly Gly 35 40 45 Val Ser Ala Gln Glu Leu Thr Ala Pro Pro Gln Glu Gly Trp Gly Leu 55 60 Gly Ala Pro Pro Ala Ala Pro Arg Pro Glu Ser Asp Glu Lys Arg Ala 70 75 Gly Ser Asp Ala Val Arg Ser Phe Ser Arg Gly Ala Arg Asp Ser Leu 85 90 Gly Gln Arg Arg Leu Gly Gly Thr Arg Gly Ala Gly Pro Ala Gly Lys 100 105 Gly Ala Gln Arg Thr Met Gly Pro Ala Ser Gly Phe His Ser Phe Pro 120 Pro Arg Pro His Gln Glu Pro Ser Pro Arg Ser Ser Cys Trp Gln His 135 140 Leu Leu Trp His Cys Pro Trp Pro Gln Pro Ser Arg Leu Pro Arg Leu 145 150 155 160 150 Thr Pro Ala Gln Leu Leu Gln Gly Pro Gly Val Leu Ala Ala Pro Pro 175 165 170 Gly Pro Xaa His Val Pro Gly Phe Leu Ala Gln Ser Pro Trp Pro Leu 180 185 Pro Ser Gly Pro Arg Ser Pro Xaa Asp Pro Leu His Gln Gly Ala Leu 195 200 205 Val Pro Leu Pro Gln Gly Gly Ser Pro His Thr Ala Pro His Cys Leu 220 210 215 Pro Ser Val Leu Ser Pro Ala Ile Gln Gln Pro Leu Leu Pro Thr Ala 230 235 Ser Thr Ser Ser Arg Ser Pro Pro Ala Ser Thr Met Ala Pro Ile Pro 245 250 Ser Ala Leu Ala Val Trp Glu Pro Ala Gly Ser Ser Pro Gln Leu Ser 260 265 270 Ser Ala Pro Ala Asp Ser Ser Pro Leu Pro Ala Leu Pro Lys Val Leu 280 285 Pro Pro Trp Thr Gln Lys Pro Leu Leu Gly Cys Leu Cys Gln Ser Pro 295 300 Leu Pro Leu Leu Ser Pro Pro Asp Gln Ile Arg Cys Pro Pro Ala Cys 310 315 Ser Pro Ala Ala Ala Ser Ser Phe Ser Phe Glu Ser Gln Pro Cys Pro 330 . 335 325 Ser Ala Pro Ser Lys Ala Ser Pro Ala Pro Ala Ala Leu Ile Val Gly 340 345 Pro His His Pro Pro Xaa Ser Gln Gln Pro Gln Ser Gln Ser Val His 355 360 365 Pro His Gly Pro Gly Gly Pro Gln Pro Pro Leu Ala Ala Ser Ser Leu 370 375 380

Phe Trp Met Phe Cys Gln Pro Pro Pro Pro His Pro Gln Phe Leu Trp His Arg Pro Leu Pro Val Thr Gly Lys Ala Leu Ala Ser Pro Leu Cys Phe Arg Pro Ala Pro Gly Ser Leu Arg Gln Thr Pro Leu Pro Pro Gln Phe His Ile Pro Arg Pro Gly Leu Ser Ala Pro Pro Pro Pro Ala Ser Gly Thr Ser Asp Ser Ser Asp Ser Arg Ser Pro Ser Ala Ser Ala Ala Arg Val Trp Pro Pro Ala Ser Pro Pro Pro Pro Ala Ala Arg His Arg 470 475 Pro His Pro Pro Glu Tyr Phe Leu Ser Pro Cys Pro Phe Ser Cys Gly Phe Pro Arg Leu Leu Gly Arg Pro Arg Pro Gln Ala Leu Gln Thr Pro Arg Ala Trp Asp Leu Pro Pro Gly Ser Ser Pro Ala Pro Leu Cys Ser Gly Pro Glu Leu Pro Xaa Ala Pro Pro Pro Leu Pro Pro Phe Pro 535 540 Arg Val Ala Xaa Leu Gly Ser Gly His Pro Pro Ser Ala Gln Val Pro Gly Leu Trp Xaa Arg Cys Val Xaa Gly His Pro Ile Pro Arg Pro Val Gly His Ser Xaa Ser Gly Pro Pro His Ser Pro Pro Leu Xaa Ala Pro Pro Gln Ala Trp Pro Leu Glu Leu Pro Pro Ser Arg Gln Cys Leu Gln Pro Leu His Leu Arg Ala Ala Gln Pro Leu Asp Pro Cys Cys Ser Leu Ser Pro Pro Gly Pro Pro Leu Pro Val Pro Ala Leu Pro Ser Trp Pro Gly Arg Pro Xaa Ser Pro Ser Pro Ala Ser Ser Gln Pro Pro Tyr His Ala Gly Leu Pro Gly Pro Gln Ser Ser Pro Leu Pro Pro Gly Leu Pro Gln Leu Pro Ser Leu Arg Ser Gly Ser Gln Gln Pro Leu Leu Phe Phe Gln Cys Pro Gly Pro Gly Ala Val Trp Gly Lys Gly Ser Pro Gln Pro Leu Ser Pro His Pro Pro Pro Pro Ala Arg Thr Gln Thr Phe Pro Val Ala Ser Arg Ser Leu Ser Pro Gly Thr Ala Pro Tyr Ser Val Cys Leu Thr Pro Ser Arg Ser Ala Ser Ser Leu Pro Glu Val Val Leu Ala Ser Ser Leu Pro Lys Ile Pro Gln Ser Ser Gly Ser Pro Leu Gly Pro Thr Ser Pro Met Pro Xaa Cys Phe His Arg Pro Ser Pro Pro Leu Pro Leu Ser Ser Pro Phe Pro Ala Leu Arg Pro Gln Ala Pro Gln Phe Pro Leu His Leu Pro Pro Xaa Pro Pro Ala Pro Ser Pro Gly Cys Pro Leu Pro 810 . 815 Pro Leu Ala Gln Gln His Gln Pro Ser Pro Pro Ser Pro His Ala Arg Ser Thr Leu Thr Pro Pro Leu Trp Pro Ser Leu Ala Leu Leu Pro Xaa Pro Leu Pro Pro Pro Pro Val Pro Ser Phe Ser Ala Ser Leu Leu Cys Ser Leu Pro Ala His Gly Thr Pro Ala Ser Pro Gly Leu Gly Arg B70 Ser Cys Leu Gly Lys Pro Gln Thr Leu Pro Trp Ile Ser Phe Trp Pro 

Pro Ser Gly Arg Leu Ala Pro Gly Thr Trp Gln Pro Trp Pro Val Ser 900 905 Pro Ala Pro Leu Ser Cys Leu Ser Ala Trp Asp Pro Trp Glu Leu Pro 920 Ser Pro Gln Pro Gln Val Cys Ser Thr Ala Glu Leu Pro Thr Ser Cys 935 940 Leu Leu Ser Ser Pro Gly Pro Pro Ala Phe Gln Pro Pro Arg Phe Gly 950 955 Cys Leu Xaa Gly Pro Pro Gly Pro Pro Gly Leu Pro Pro Leu Gln Ser 965 970 975 Ser Leu Ser Phe Pro Pro Pro Pro Pro Pro Val Pro Gln Pro Pro Ala 980 985 990 Pro Pro Ala Leu Gln Trp Gly Leu His Leu Pro Gly Gly Arg Thr Lys 1000 1005

<210> 1898

<211> 510

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (508)

<223> Xaa = any amino acid or nothing

<400> 1898

Arg Ile His Arg Glu Glu Asp Phe Gln Phe Ile Leu Lys Gly Ile Ala 10 5 Arg Leu Leu Ser Asn Pro Leu Leu Gln Thr Tyr Leu Pro Asn Ser Thr 20 25 Lys Lys Ile Gln Phe His Gln Glu Leu Leu Val Leu Phe Trp Lys Leu 40 Cys Asp Phe Asn Lys Val Gly Gln Pro Arg Gly Ala Leu Gln Gly Asp 55 Gly Glu Gln Leu Pro Gln Xaa Pro Gly Gly Arg Asp Ser Val Arg Leu 75 70 Arg Gly Val Gly Gln Ser Cys Pro Ser Leu Glu Leu Ser Pro Leu Gly 90 Pro Ser Pro His Pro Xaa Lys Phe Leu Phe Phe Val Leu Lys Ser Ser 100 105 110 Asp Val Leu Asp Ile Leu Val Pro Ile Leu Phe Phe Leu Asn Asp Ala 115 120 125 Arg Ala Asp Gln Ser Arg Val Gly Leu Met His Ile Gly Val Phe Ile 135 Leu Leu Leu Ser Gly Glu Cys Asn Phe Gly Val Arg Leu Asn Lys 150 155 Pro Tyr Ser Ile Arg Val Pro Met Asp Ile Pro Val Phe Thr Gly Thr 165 170 His Ala Asp Leu Leu Ile Val Val Phe His Lys Ile Ile Thr Ser Gly 180 185 His Gln Arg Leu Gln Pro Leu Phe Asp Cys Leu Leu Thr Ile Val Val 195 200 Asn Val Ser Pro Tyr Leu Lys Ser Leu Ser Met Val Thr Ala Asn Lys 210 215 220 Leu Leu His Leu Leu Glu Ala Phe Ser Thr Thr Trp Phe Leu Phe Ser 235 Ala Ala Gln Asn His His Leu Val Phe Phe Leu Leu Glu Val Phe Asn 245 250 Asn Ile Ile Gln Tyr Gln Phe Asp Gly Asn Ser Asn Leu Val Tyr Ala

260 . 265 270

Ile Ile Arg Lys Arg Ser Ile Phe His Gln Leu Ala Asn Leu Pro Thr 275 280 285 Asp Pro Pro Thr Ile His Lys Ala Leu Gln Arg Arg Arg Thr Pro 295 Glu Pro Leu Ser Arg Thr Gly Ser Gln Gly Gly Ala Pro Pro Trp Arg 310 315 Ala Pro Ala Pro Leu Pro Leu Gln Ser Gln Ala Pro Ser Arg Pro Val 330 325 Trp Trp Leu Leu Gln Ala Leu Thr Ser Xaa Pro Arg Ser Pro Arg Cys 345 350 340 Gln Arg Met Ala Pro Cys Gly Pro Trp Asn Leu Ser Pro Ser Arg Ala 360 355 Trp Arg Met Ala Ala Arg Leu Arg Gly Ser Pro Ala Arg His Gly Gly 375 380 Ser Ser Gly Asp Arg Pro His Ser Ser Ala Ser Gly Gln Trp Ser Pro 390 395 Thr Pro Glu Trp Val Leu Ser Trp Lys Ser Lys Leu Pro Leu Gln Thr 405 410 Ile Met Arg Leu Leu Gln Val Leu Val Pro Gln Val Glu Lys Ile Cys 420 425 Ile Asp Lys Gly Leu Thr Asp Glu Ser Glu Ile Leu Arg Phe Leu Gln 440 445 His Gly Thr Leu Val Gly Leu Leu Pro Val Pro His Pro Ile Leu Ile 460 455 Arg Lys Tyr Gln Ala Asn Ser Gly Thr Ala Met Trp Phe Arg Thr Tyr 470 475 Met Trp Gly Val Ile Tyr Leu Arg Asn Val Asp Pro Pro Val Trp Tyr 490 485 Asp Thr Asp Val Lys Leu Phe Glu Ile Gln Arg Val 505 500

<210> 1899 <211> 180 <212> PRT

<213> Homo sapiens

179

<400> 1899 Leu Pro Trp Gln Arg Leu Gly Val Leu Leu Ser Arg Gly Lys Met Ala 10 Val Thr Gly Trp Leu Glu Ser Leu Arg Thr Ala Gln Lys Thr Ala Leu 25 Leu Gln Asp Gly Arg Arg Lys Val His Tyr Leu Phe Pro Asp Gly Lys 35 40 Glu Met Ala Glu Glu Tyr Asp Glu Lys Thr Ser Glu Leu Leu Val Arg 55 60 Lys Trp Arg Val Lys Ser Ala Leu Gly Ala Met Gly Gln Trp Gln Leu 75 Glu Val Gly Asp Pro Ala Pro Leu Gly Ala Gly Asn Leu Gly Pro Glu 85 90 Leu Ile Lys Glu Ser Asn Ala Asn Pro Ile Phe Met Arg Lys Asp Thr 100 ' 105 110 Lys Met Ser Phe Gln Trp Arg Ile Arg Asn Leu Pro Tyr Pro Lys Asp 120 125 Val Tyr Ser Val Ser Val Asp Gln Lys Glu Arg Cys Ile Ile Val Arg 135 140 Thr Thr Asn Lys Lys Tyr Tyr Lys Lys Phe Ser Ile Pro Asp Leu Asp 155 150 Arg His Gln Leu Pro Leu Asp Asp Ala Leu Leu Ser Phe Ala Thr Pro 165 170 Thr Ala Pro

<210> 1900 <211> 666 <212> PRT <213> Homo sapiens

<400> 1900 Ile Arg His Thr Gly Ser Asp Ile Ala Gly Val Cys Gly Trp Leu Leu 1 5 10 15 Leu Ser Gly Pro Cys Gly Val Gly Leu Asp Leu Asp Ser Arg Leu Leu Gly Ala Ser Ala Met Arg Arg Ser Glu Val Leu Ala Glu Glu Ser Ile Val Cys Leu Gln Lys Ala Leu Asn His Leu Arg Glu Ile Trp Glu Leu 55 Ile Gly Ile Pro Glu Asp Gln Arg Leu Gln Arg Thr Glu Val Val Lys 70 75 Lys His Ile Lys Glu Leu Leu Asp Met Met Ile Ala Glu Glu Ser 90 85 Leu Lys Glu Arg Leu Ile Lys Ser Ile Ser Val Cys Gln Lys Glu Leu 100 105 110 Asn Thr Leu Cys Ser Glu Leu His Val Glu Pro Phe Gln Glu Glu Gly 125 115 120 Glu Thr Thr Ile Leu Gln Leu Glu Lys Asp Leu Arg Thr Gln Val Glu 135 140 Leu Met Arg Lys Gln Lys Lys Glu Arg Lys Gln Glu Leu Lys Leu Leu 150 155 Gln Glu Gln Asp Gln Glu Leu Cys Glu Ile Leu Cys Met Pro His Tyr 165 170 Asp Ile Asp Ser Ala Ser Val Pro Ser Leu Glu Glu Leu Asn Gln Phe 185 180 Arg Gln His Val Thr Thr Leu Arg Glu Thr Lys Ala Ser Arg Arg Glu 195 200 205 Glu Phe Val Ser Ser Ile Lys Arg Gln Ile Ile Leu Cys Met Glu Glu 215 220 Leu Asp His Thr Pro Asp Thr Ser Phe Glu Arg Asp Val Val Cys Glu 230 235 Asp Glu Asp Ala Phe Cys Leu Ser Leu Glu Asn Ile Ala Thr Leu Gln 245 250 Lys Leu Leu Arg Gln Leu Glu Met Gln Lys Ser Gln Asn Glu Ala Val 260 265 270 Cys Glu Gly Leu Arg Thr Gln Ile Arg Glu Leu Trp Asp Arg Leu Gln 275 280 285 Ile Pro Glu Glu Glu Arg Glu Ala Val Ala Thr Ile Met Ser Gly Ser 295 300 Lys Ala Lys Val Arg Lys Ala Leu Gln Leu Glu Val Asp Arg Leu Glu 310 315 Glu Leu Glu Lys Cys Lys Thr Met Lys Lys Val Ile Glu Ala Ile Arg 325 330 Vai Glu Leu Val Gln Tyr Trp Asp Gln Cys Phe Tyr Ser Gln Glu Gln 340 345 350 Arg Gln Ala Phe Ala Pro Phe Cys Ala Glu Asp Tyr Thr Glu Ser Leu 355 360 365 Leu Gln Leu His Asp Ala Glu Ile Val Arg Leu Lys Asn Tyr Tyr Glu 375 Val His Lys Glu Leu Phe Glu Gly Val Gln Lys Trp Glu Glu Thr Trp 390 395 Arg Leu Phe Leu Glu Phe Glu Arg Lys Ala Ser Asp Pro Asn Arg Phe 405 410 Thr Asn Arg Gly Gly Asn Leu Leu Lys Glu Glu Lys Gln Arg Ala Lys 425

Leu Gln Lys Met Leu Pro Lys Leu Glu Glu Glu Leu Lys Ala Arg Ile 440 Glu Leu Trp Glu Gln Glu His Ser Lys Ala Phe Met Val Asn Gly Gln 455 460 Lys Phe Met Glu Tyr Val Ala Glu Gln Trp Glu Met His Arg Leu Glu 470 475 Lys Glu Arg Ala Lys Gln Glu Arg Gln Leu Lys Asn Lys Lys Gln Thr 485 490 Glu Thr Glu Met Leu Tyr Gly Ser Ala Pro Arg Thr Pro Ser Lys Arg 500 505 510 Arg Gly Leu Ala Pro Asn Thr Pro Gly Lys Ala Arg Lys Leu Asn Thr 515 520 525 Thr Thr Met Ser Asn Ala Thr Ala Asn Ser Ser Ile Arg Pro Ile Phe 535 540 Gly Gly Thr Val Tyr His Ser Pro Val Ser Arg Leu Pro Pro Ser Gly 550 555 Ser Lys Pro Val Ala Ala Ser Thr Cys Ser Gly Lys Lys Thr Pro Arg 565 570 Thr Gly Arg His Gly Ala Asn Lys Glu Asn Leu Glu Leu Asn Gly Ser 585 590 580 Ile Leu Ser Gly Gly Tyr Pro Gly Ser Ala Pro Leu Gln Arg Asn Phe 595 600 605 Ser Ile Asn Ser Val Ala Ser Thr Tyr Ser Glu Phe Ala Asp Pro Ser 610 615 620 Leu Ser Asp Ser Ser Thr Val Gly Leu Gln Arg Glu Leu Ser Lys Ala 635 630 Ser Lys Ser Asp Ala Thr Ser Gly Ile Leu Asn Ser Thr Asn Ile Gln 645 650 657

<210> 1901 <211> 338 <212> PRT <213> Homo sapiens

<400> 1901 Ala Trp His Glu Gly Leu Val Ser Ser Pro Ala Ile Gly Ala Tyr Leu 10 Ser Ala Ser Tyr Gly Asp Ser Leu Val Val Leu Val Ala Thr Val Val 20 25 Ala Leu Leu Asp Ile Cys Phe Ile Leu Val Ala Val Pro Glu Ser Leu 40 Pro Glu Lys Met Arg Pro Val Ser Trp Gly Ala Gln Ile Ser Trp Lys 55 60 Gln Ala Asp Pro Phe Ala Ser Leu Lys Lys Val Gly Lys Asp Ser Thr 70 75 Val Leu Leu Île Cys Ile Thr Val Cys Leu Ser Tyr Leu Pro Glu Ala 85 90 Gly Gln Tyr Ser Ser Phe Phe Leu Tyr Leu Arg Gln Val Ile Gly Phe 100 105 110 Gly Thr Val Lys Ile Ala Ala Phe Ile Ala Met Val Gly Ile Leu Ser 115 120 125 Ile Val Ala Gln Thr Ala Phe Leu Ser Ile Leu Met Arg Ser Leu Gly 135 140 Asn Lys Asn Thr Val Leu Leu Gly Leu Gly Phe Gln Met Leu Gln Leu 150 155 Ala Trp Tyr Gly Phe Gly Ser Gln Ala Trp Met Met Trp Ala Ala Gly 165 170 175 Thr Val Ala Ala Met Ser Ser Ile Thr Phe Pro Ala Ile Ser Ala Leu 185

Val Ser Arg Asn Ala Glu Ser Asp Gln Gln Gly Val Ala Gln Gly Ile 200 Ile Thr Gly Ile Arg Gly Leu Cys Asn Gly Leu Gly Pro Ala Leu Tyr 215 220 Gly Phe Ile Phe Tyr Met Phe His Val Glu Leu Thr Glu Leu Gly Pro 230 235 Lys Leu Asn Ser Asn Asn Val Pro Leu Gln Gly Ala Val Ile Pro Gly 245 250 Pro Pro Phe Leu Phe Gly Ala Cys Ile Val Leu Met Ser Phe Leu Val 260 265 Ala Leu Phe Ile Pro Glu Tyr Ser Lys Ala Ser Gly Val Gln Lys His 275 280 285 Ser Asn Ser Ser Ser Gly Ser Leu Thr Asn Thr Pro Glu Arg Gly Ser 290 295 300 Asp Glu Asp Ile Glu Pro Leu Leu Gln Asp Ser Ser Ile Trp Glu Leu 315 310 Ser Ser Phe Glu Glu Pro Gly Asn Gln Cys Thr Glu Leu

<210> 1902 <211> 4767 <212> PRT <213> Homo sapiens

<400> 1902 Ala Arg Pro Pro Pro Ala Pro Gly Ser Arg Gln Gln Lys Gln Lys Ala 10 Ala Pro Gly Ala Ala Ala Ala Glu Leu Arg Gly Ala Arg Glu Pro 25 Ala Pro Ala Arg Arg Gly Thr Met Ala Asp Gly Glu Gly Glu 35 40 Asp Glu Ile Gln Phe Leu Arg Thr Asp Asp Glu Val Val Leu Gln Cys 55 60 Thr Ala Thr Ile His Lys Glu Gln Gln Lys Leu Cys Leu Ala Ala Glu 75 Gly Phe Gly Asn Arg Leu Cys Phe Leu Glu Ser Thr Ser Asn Ser Lys 85 90 Asn Val Pro Pro Asp Leu Ser Ile Cys Thr Phe Val Leu Glu Gln Ser 105 110 100 Leu Ser Val Arg Ala Leu Gln Glu Met Leu Ala Asn Thr Val Glu Lys 115 120 125Ser Glu Gly Gln Val Asp Val Glu Lys Trp Lys Phe Met Met Lys Thr 130 135 140 Ala Gln Gly Gly His Arg Thr Leu Leu Tyr Gly His Ala Ile Leu 150 155 Leu Arg His Ser Tyr Ser Gly Met Tyr Leu Cys Cys Leu Ser Thr Ser 165 170 Arg Ser Ser Thr Asp Lys Leu Ala Phe Asp Val Gly Leu Gln Glu Asp 180 185 190 Thr Thr Gly Glu Ala Cys Trp Trp Thr Ile His Pro Ala Ser Lys Gln 200 195 205 Arg Ser Glu Gly Glu Lys Val Arg Val Gly Asp Asp Leu Ile Leu Val 215 220 Ser Val Ser Ser Glu Arg Tyr Leu His Leu Ser Tyr Gly Asn Gly Ser 225 230 235 240 230 235 Leu His Val Asp Ala Ala Phe Gln Gln Thr Leu Trp Ser Val Ala Pro 250 245 Ile Ser Ser Gly Ser Glu Ala Ala Gln Gly Tyr Leu Ile Gly Gly Asp 265 270 Val Leu Arg Leu Leu His Gly His Met Asp Glu Cys Leu Thr Val Pro

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Ser Gly Glu His Gly Glu Glu Gln Arg Arg Thr Val His Tyr Glu Gly
                        295
                                          300
 Gly Ala Val Ser Val His Ala Arg Ser Leu Trp Arg Leu Glu Thr Leu
                  310
                                       315
 Arg Val Ala Trp Ser Gly Ser His Ile Arg Trp Gly Gln Pro Phe Arg
               325
                                 330
 Leu Arg His Val Thr Thr Gly Lys Tyr Leu Ser Leu Met Glu Asp Lys
           340
                              345
                                        350
 Asn Leu Leu Met Asp Lys Glu Lys Ala Asp Val Lys Ser Thr Ala
                          360
 Phe Thr Phe Arg Ser Ser Lys Glu Lys Leu Asp Val Gly Val Arg Lys
                       375
                                         380
 Glu Val Asp Gly Met Gly Thr Ser Glu Ile Lys Tyr Gly Asp Ser Val
                   390
                                      395
 Cys Tyr Ile Gln His Val Asp Thr Gly Leu Trp Leu Thr Tyr Gln Ser
              405
                                   410
Val Asp Val Lys Ser Val Arg Met Gly Ser Ile Gln Arg Lys Ala Ile
           420
                              425
                                                 430
Met His His Glu Gly His Met Asp Asp Gly Ile Ser Leu Ser Arg Ser
                          440
                                       445
Gln His Glu Glu Ser Arg Thr Ala Arg Val Ile Arg Ser Thr Val Phe
                       455
                                  460
Leu Phe Asn Arg Phe Ile Arg Gly Leu Asp Ala Leu Ser Lys Lys Ala
                  470
                                      475
Lys Ala Ser Thr Val Asp Leu Pro Ile Glu Ser Val Ser Leu Ser Leu
               485
                                  490
Gln Asp Leu Ile Gly Tyr Phe His Pro Pro Asp Glu His Leu Glu His
           500
                             505
Glu Asp Lys Gln Asn Arg Leu Arg Ala Leu Lys Asn Arg Gln Asn Leu
                         520
                                            525
Phe Gln Glu Glu Gly Met Ile Asn Leu Val Leu Glu Cys Ile Asp Arg
                     535
Leu His Val Tyr Ser Ser Ala Ala His Phe Ala Asp Val Ala Gly Arg
                  550
                                     555
Glu Ala Gly Glu Ser Trp Lys Ser Ile Leu Asn Ser Leu Tyr Glu Leu
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Leu Ala Ala Leu Ile Arg Gly Asn Arg Lys Asn Cys Ala Gln Phe Ser
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Gly Ser Leu Asp Trp Leu Ile Ser Arg Leu Glu Arg Leu Glu Ala Ser
       595
                          600
Ser Gly Ile Leu Glu Val Leu His Cys Val Leu Val Glu Ser Pro Glu
                       615
                                         620
Ala Leu Asn Ile Ile Lys Glu Gly His Ile Lys Ser'lle Ile Ser Leu
                                      635
Leu Asp Lys His Gly Arg Asn His Lys Val Leu Asp Val Leu Cys Ser
              645
                                  650
Leu Cys Val Cys His Gly Val Ala Val Arg Ser Asn Gln His Leu Ile
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                              665
Cys Asp Asn Leu Leu Pro Gly Arg Asp Leu Leu Leu Gln Thr Arg Leu
                          680
                                            685
Val Asn His Val Ser Ser Met Arg Pro Asn Ile Phe Leu Gly Val Ser
                      695
                                         700
Glu Gly Ser Ala Gln Tyr Lys Lys Trp Tyr Tyr Glu Leu Met Val Asp
                 710
                                      715
His Thr Glu Pro Phe Val Thr Ala Glu Ala Thr His Leu Arg Val Gly
              725
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Trp Ala Ser Thr Glu Gly Tyr Ser Pro Tyr Pro Gly Gly Glu Glu
           740
                              745
                                                750
Trp Gly Gly Asn Gly Val Gly Asp Asp Leu Phe Ser Tyr Gly Phe Asp
                          760
Gly Leu His Leu Trp Ser Gly Cys Ile Ala Arg Thr Val Ser Ser Pro
                     775
                                         780
Asn Gln His Leu Leu Arg Thr Asp Asp Val Ile Ser Cys Cys Leu Asp
                  790
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Leu Ser Ala Pro Ser Ile Ser Phe Arg Ile Asn Gly Gln Pro Val Gln 805 810 Gly Met Phe Glu Asn Phe Asn Ile Asp Gly Leu Phe Phe Pro Val Val 825 830 820 Ser Phe Ser Ala Gly Ile Lys Val Arg Phe Leu Leu Gly Gly Arg His 840 845 835 Gly Glu Phe Lys Phe Leu Pro Pro Pro Gly Tyr Ala Pro Cys Tyr Glu 855 860 Ala Val Leu Pro Lys Glu Lys Leu Lys Val Glu His Ser Arg Glu Tyr 870 875 Lys Gln Glu Arg Thr Tyr Thr Arg Asp Leu Leu Gly Pro Thr Val Ser . 895 885 890 Leu Thr Gln Ala Ala Phe Thr Pro Ile Pro Val Asp Thr Ser Gln Ile 900 905 910 Val Leu Pro Pro His Leu Glu Arg Ile Arg Glu Lys Leu Ala Glu Asn 920 Ile His Glu Leu Trp Val Met Asn Lys Ile Glu Leu Gly Trp Gln Tyr 935 940 Gly Pro Val Arg Asp Asp Asn Lys Arg Gln His Pro Cys Leu Val Glu 955 945 950 Phe Ser Lys Leu Pro Glu Gln Glu Arg Asn Tyr Asn Leu Gln Met Ser 965 970 Leu Glu Thr Leu Lys Thr Leu Leu Ala Leu Gly Cys Ris Val Gly Ile 980 985 990 Ser Asp Glu His Ala Glu Asp Lys Val Lys Lys Met Lys Leu Pro Lys 1005 995 1000 Asn Tyr Gln Leu Thr Ser Gly Tyr Lys Pro Ala Pro Met Asp Leu Ser 1020 1010 1015 Phe Ile Lys Leu Thr Pro Ser Gln Glu Ala Met Val Asp Lys Leu Ala 1030 1035 Glu Asn Ala His Asn Val Trp Ala Arg Asp Arg Ile Arg Gln Gly Trp 1045 1050 1055 Thr Tyr Gly Ile Gln Gln Asp Val Lys Asn Arg Arg Asn Pro Arg Leu 1060 1065 1070 Val Pro Tyr Thr Pro Leu Asp Asp Arg Thr Lys Lys Ser Asn Lys Asp 1075 1080 1085 Ser Leu Arg Glu Ala Val Arg Thr Leu Leu Gly Tyr Gly Tyr Asn Leu 1095 1100 Glu Ala Pro Asp Gln Asp His Ala Ala Arg Ala Glu Val Cys Ser Gly 1110 1115 1120 Thr Gly Glu Arg Phe Arg Ile Phe Arg Ala Glu Lys Thr Tyr Ala Val Lys Ala Gly Arg Trp Tyr Phe Glu Phe Glu Thr Val Thr Ala Gly Asp 1140 1145 1150 Met Arg Val Gly Trp Ser Arg Pro Gly Cys Gln Pro Asp Gln Glu Leu 1155 1160 1165 Gly Ser Asp Glu Arg Ala Phe Ala Phe Asp Gly Phe Lys Ala Gln Arg 1170 1175 1180 Trp His Gln Gly Asn Glu His Tyr Gly Arg Ser Trp Gln Ala Gly Asp 1190 1195 Val Val Gly Cys Met Val Asp Met Asn Glu His Thr Met Met Phe Thr 1205 1210 1215 Leu Asn Gly Glu Ile Leu Leu Asp Asp Ser Gly Ser Glu Leu Ala Phe 1220 1225 1230 Lys Asp Phe Asp Val Gly Asp Gly Phe Ile Pro Val Cys Ser Leu Gly 1240 1245 Val Ala Gln Val Gly Arg Met Asn Phe Gly Lys Asp Val Ser Thr Leu 1255 1260 Lys Tyr Phe Thr Ile Cys Gly Leu Gln Glu Gly Tyr Glu Pro Phe Ala 1270 1275 Val Asn Thr Asn Arg Asp Ile Thr Met Trp Leu Ser Lys Arg Leu Pro 1285 1290 Gln Phe Leu Gln Val Pro Ser Asn His Glu His Ile Glu Val Thr Arg 1305

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Asp Ile Leu Lys Ser Lys Thr Ile Gln Met Leu Thr Glu Ala Val Lys 1830 1835 Glu Gly Ser Leu His Ala Arg Asp Pro Val Gly Gly Thr Thr Glu Phe 1845 1850 Leu Phe Val Pro Leu Ile Lys Leu Phe Tyr Thr Leu Leu Ile Met Gly 1865 Ile Phe His Asn Glu Asp Leu Lys His Ile Leu Gln Leu Ile Glu Pro 1880 1885 1875 Ser Val Phe Lys Glu Ala Ala Thr Pro Glu Glu Glu Ser Asp Thr Leu 1895 · 1900 Glu Lys Glu Leu Ser Val Asp Asp Ala Lys Leu Gln Gly Ala Gly Glu 1910 1915 Glu Glu Ala Lys Gly Gly Lys Arg Pro Lys Glu Gly Leu Leu Gln Met 1925 1930 1935 Lys Leu Pro Glu Pro Val Lys Leu Gln Met Cys Leu Leu Gln Tyr 1945 1950 1940 Leu Cys Asp Cys Gln Val Arg His Arg Ile Glu Ala Ile Val Ala Phe 1960 1955 Ser Asp Asp Phe Val Ala Lys Leu Gln Asp Asn Gln Arg Phe Arg Tyr 1975 1980 Asn Glu Val Met Gln Ala Leu Asn Met Ser Ala Ala Leu Thr Ala Arg 1990 1995 Lys Thr Lys Glu Phe Arg Ser Pro Pro Gln Glu Gln Ile Asn Met Leu 2005 2010 2015 Leu Asn Phe Lys Asp Asp Lys Ser Glu Cys Pro Cys Pro Glu Glu Ile 2020 2025 2030 Arg Asp Gln Leu Leu Asp Phe His Glu Asp Leu Met Thr His Cys Gly 2035 2040 2045 Ile Glu Leu Asp Glu Asp Gly Ser Leu Asp Gly Asn Ser Asp Leu Thr 2055 2060 Ile Arg Gly Arg Leu Leu Ser Leu Val Glu Lys Val Thr Tyr Leu Lys 2070 2075 Lys Lys Glm Ala Glu Lys Pro Val Glu Ser Asp Ser Lys Lys Ser Ser 2085 2090 2095 Thr Leu Gln Gln Leu Ile Ser Glu Thr Met Val Arg Trp Ala Gln Glu 2100 2105 2110 Ser Val Ile Glu Asp Pro Glu Leu Val Arg Ala Met Phe Val Leu Leu 2115 2120 2125 His Arg Gln Tyr Asp Gly Ile Gly Gly Leu Val Arg Ala Leu Pro Lys 2130 2135 2140 Thr Tyr Thr Ile Asn Gly Val Ser Val Glu Asp Thr Ile Asn Leu Leu 2145 2150 2155 Ala Ser Leu Gly Gln Ile Arg Ser Leu Leu Ser Val Arg Met Gly Lys 2165 2170 Glu Glu Glu Lys Leu Met Ile Arg Gly Leu Gly Asp Ile Met Asn Asn 2180 2185 2190 Lys Val Phe Tyr Gln His Pro Asn Leu Met Arg Ala Leu Gly Met His 2195 2200 2205 Glu Thr Val Met Glu Val Met Val Asn Val Leu Gly Gly Glu Ser 2210 2215 2220 Lys Glu Ile Thr Phe Pro Lys Met Val Ala Asn Cys Cys Arg Phe Leu 2230 2235 Cys Tyr Phe Cys Arg Ile Ser Arg Gln Asn Gln Lys Ala Met Phe Asp 2245 2250 2255 His Leu Ser Tyr Leu Leu Glu Asn Ser Ser Val Gly Leu Ala Ser Pro 2260 2265 2270 Ala Met Arg Gly Ser Thr Pro Leu Asp Val Ala Ala Ser Val Met 2275 2280 2285 Asp Asn Asn Glu Leu Ala Leu Ala Leu Arg Glu Pro Asp Leu Glu Lys 2295 2300 Val Val Arg Tyr Leu Ala Gly Cys Gly Leu Gln Ser Cys Gln Met Leu 2310 2315 2320 2305 Val Ser Lys Gly Tyr Pro Asp Ile Gly Trp Asn Pro Val Glu Gly Glu 2325 2330

Arg Tyr Leu Asp Phe Leu Arg Phe Ala Val Phe Cys Asn Gly Glu Ser 2345 2350 2340 Val Glu Glu Asn Ala Asn Val Val Val Arg Leu Leu Ile Arg Arg Pro 2355 2360 Glu Cys Phe Gly Pro Ala Leu Arg Gly Glu Gly Gly Asn Gly Leu Leu 2370 2375 2380 Ala Ala Met Glu Glu Ala Ile Lys Ile Ala Glu Asp Pro Ser Arg Asp 2390 2395 Gly Pro Ser Pro Asn Ser Gly Ser Ser Lys Thr Leu Asp Thr Glu Glu 2405 2410 Glu Glu Asp Asp Thr Ile His Met Gly Asn Ala Ile Met Thr Phe Tyr 2425 2420 2430 Ser Ala Leu Ile Asp Leu Leu Gly Arg Cys Ala Pro Glu Met His Leu 2445 2435 2440 Ile His Ala Gly Lys Gly Glu Ala Ile Arg Ile Arg Ser Ile Leu Arg 2455 2460 Ser Leu Ile Pro Leu Gly Asp Leu Val Gly Val Ile Ser Ile Ala Phe 2470 2475 Gln Met Pro Thr Ile Ala Lys Asp Gly Asn Val Val Glu Pro Asp Met 2485 2490 2495 Ser Ala Gly Phe Cys Pro Asp His Lys Ala Ala Met Val Leu Phe Leu 2500 2505 2510 Asp Arg Val Tyr Gly Ile Glu Val Gln Asp Phe Leu Leu His Leu Leu 2520 2525 Glu Val Gly Phe Leu Pro Asp Leu Arg Ala Ala Ala Ser Leu Asp Thr 2530 2535 2540 Ala Ala Leu Ser Ala Thr Asp Met Ala Leu Ala Leu Asn Arg Tyr Leu 2550 2555 Cys Thr Ala Val Leu Pro Leu Leu Thr Arg Cys Ala Pro Leu Phe Ala 2565 2570 Gly Thr Glu His His Ala Ser Leu Ile Asp Ser Leu Leu His Thr Val 2580 2585 2590 Tyr Arg Leu Ser Lys Gly Cys Ser Leu Thr Lys Ala Gln Arg Asp Ser 2600 2605 Ile Glu Val Cys Leu Leu Ser Ile Cys Gly Gln Leu Arg Pro Ser Met 2615 2620 Met Gln His Leu Leu Arg Arg Leu Val Phe Asp Val Pro Leu Leu Asn 2630 2635 Glu His Ala Lys Met Pro Leu Lys Leu Leu Thr Asn His Tyr Glu Arg 2645. 2650 2655 Cys Trp Lys Tyr Cys Leu Pro Gly Gly Trp Gly Asn Phe Gly Ala 2660 2665 2670 Ala Ser Glu Glu Glu Leu His Leu Ser Arg Lys Leu Phe Trp Gly Ile 2675 2680 2685 Phe Asp Ala Leu Ser Gln Lys Lys Tyr Glu Gln Glu Leu Phe Lys Leu 2690 2695 2700 Ala Leu Pro Cys Leu Ser Ala Val Ala Gly Ala Leu Pro Pro Asp Tyr 2710 2715 Met Glu Ser Asn Tyr Val Ser Met Met Glu Lys Gln Ser Ser Met Asp 2725 2730 2735 Ser Glu Gly Asn Phe Asn Pro Gln Pro Val Asp Thr Ser Asn Ile Thr 2740 2745 2750 Ile Pro Glu Lys Leu Glu Tyr Phe Ile Asn Lys Tyr Ala Glu His Ser 2755 2760 2765 His Asp Lys Trp Ser Met Asp Lys Leu Ala Asn Gly Trp Ile Tyr Gly 2775 2780 Glu Ile Tyr Ser Asp Ser Ser Lys Val Gln Pro Leu Met Lys Pro Tyr 2790 2795 Lys Leu Leu Ser Glu Lys Glu Lys Glu Ile Tyr Arg Trp Pro Ile Lys 2805 2810 2815 Glu Ser Leu Lys Thr Met Leu Ala Arg Thr Met Arg Thr Glu Arg Thr 2820 2825 2830 Arg Glu Gly Asp Ser Met Ala Leu Tyr Asn Arg Thr Arg Arg Ile Ser 2840 2845

Gln Thr Ser Gln Val Ser Val Asp Ala Ala His Gly Tyr Ser Pro Arg 2855 2860 Ala Ile Asp Met Ser Asn Val Thr Leu Ser Arg Asp Leu His Ala Met 2870 2875 Ala Glu Met Met Ala Glu Asn Tyr His Asn Ile Trp Ala Lys Lys 2885 2890 2895 Lys Met Glu Leu Glu Ser Lys Gly Gly Asn His Pro Leu Leu Val 2900 2905 2910 Pro Tyr Asp Thr Leu Thr Ala Lys Glu Lys Ala Lys Asp Arg Glu Lys 2915 2920 2925 Ala Gln Asp Ile Leu Lys Phe Leu Gln Ile Asn Gly Tyr Ala Val Ser 2940 2935 Arg Gly Phe Lys Asp Leu Glu Leu Asp Thr Pro Ser Ile Glu Lys Arg 2945 Phe Ala Tyr Ser Phe Leu Gln Gln Leu Ile Arg Tyr Val Asp Glu Ala 2965 2970 2975 His Gln Tyr Ile Leu Glu Phe Asp Gly Gly Ser Arg Gly Lys Gly Glu 2985 2990 His Phe Pro Tyr Glu Gln Glu Ile Lys Phe Phe Ala Lys Val Val Leu 2995 3000 3005 Pro Leu Ile Asp Gln Tyr Phe Lys Asn His Arg Leu Tyr Phe Leu Ser 3020 3010 3015 Ala Ala Ser Arg Pro Leu Cys Ser Gly Gly His Ala Ser Asn Lys Glu 3030 3035 Lys Glu Met Val Thr Ser Leu Phe Cys Lys Leu Gly Val Leu Val Arg 3045 3050 3055 3045 3050 His Arg Ile Ser Leu Phe Gly Asn Asp Ala Thr Ser Ile Val Asn Cys 3060 3065 3070 Leu His Ile Leu Gly Gln Thr Leu Asp Ala Arg Thr Val Met Lys Thr 3080 3075 3085 Gly Leu Glu Ser Val Lys Ser Ala Leu Arg Ala Phe Leu Asp Asn Ala 3095 3100 Ala Glu Asp Leu Glu Lys Thr Met Glu Asn Leu Lys Gln Gly Gln Phe 3110 3115 Thr His Thr Arg Asn Gln Pro Lys Gly Val Thr Gln Ile Ile Asn Tyr 3125 3130 3135 Thr Thr Val Ala Leu Leu Pro Met Leu Ser Ser Leu Phe Glu His Ile 3140 3145 3150 Gly Gln His Gln Phe Gly Glu Asp Leu Ile Leu Glu Asp Val Gln Val 3160 3165 Ser Cys Tyr Arg Ile Leu Thr Ser Leu Tyr Ala Leu Gly Thr Ser Lys 3170 3175 3180 Ser Ile Tyr Val Glu Arg Gln Arg Ser Ala Leu Gly Glu Cys Leu Ala 3190 3195 Ala Phe Ala Gly Ala Phe Pro Val Ala Phe Leu Glu Thr His Leu Asp 3205 3210 3215 Lys His Asn Ile Tyr Ser Ile Tyr Asn Thr Lys Ser Ser Arg Glu Arg 3220 3230 3225 Ala Ala Leu Ser Leu Pro Thr Asn Val Glu Asp Val Cys Pro Asn Ile 3235 3240 3245 Pro Ser Leu Glu Lys Leu Met Glu Glu Ile Val Glu Leu Ala Glu Ser 3255 3260 Gly Ile Arg Tyr Thr Gln Met Pro His Val Met Glu Val Ile Leu Pro 3270 3275 Met Leu Cys Ser Tyr Met Ser Arg Trp Trp Glu His Gly Pro Glu Asn 3285 3290 3295 Asn Pro Glu Arg Ala Glu Met Cys Cys Thr Ala Leu Asn Ser Glu His  $3300 \hspace{1.5cm} 3305 \hspace{1.5cm} 3310$ Met Asn Thr Leu Leu Gly Asn Ile Leu Lys Ile Ile Tyr Asn Asn Leu 3315 3320 3325 Gly Ile Asp Glu Gly Ala Trp Met Lys Arg Leu Ala Val Phe Ser Gln 3335 3340 Pro Ile Ile Asn Lys Val Lys Pro Gln Leu Leu Lys Thr His Phe Leu 3350 3355

Pro Leu Met Glu Lys Leu Lys Lys Lys Ala Ala Thr Val Val Ser Glu 3365 3370 Glu Asp His Leu Lys Ala Glu Ala Arg Gly Asp Met Ser Glu Ala Glu 3380 3385 3390 Leu Leu Ile Leu Asp Glu Phe Thr Thr Leu Ala Arg Asp Leu Tyr Ala 3395 3400 3405 Phe Tyr Pro Leu Leu Ile Arg Phe Val Asp Tyr Asn Arg Ala Lys Trp . 3415 3420 Leu Lys Glu Pro Asn Pro Glu Ala Glu Glu Leu Phe Arg Met Val Ala 3430 3435 3440 Glu Val Phe Ile Tyr Trp Ser Lys Ser His Asn Phe Lys Arg Glu Glu 3445 3450 3455 Gln Asn Phe Val Val Gln Asn Glu Ile Asn Asn Met Ser Phe Leu Ile 3460 3465 3470 Thr Asp Thr Lys Ser Lys Met Ser Lys Ala Ala Val Ser Asp Gln Glu 3475 3480 3485 Arg Lys Lys Met Lys Arg Lys Gly Asp Arg Tyr Ser Met Gln Thr Ser 3490 3495 3500 Leu Ile Val Ala Ala Leu Lys Arg Leu Leu Pro Ile Gly Leu Asn Ile 3510 3515 3520 Cys Ala Pro Gly Asp Gln Glu Leu Ile Ala Leu Ala Lys Asn Arg Phe 3525 3530 3535 Ser Leu Lys Asp Thr Glu Asp Glu Val Arg Asp Ile Ile Arg Ser Asn 3540 3545 3550 Ile His Leu Gln Gly Lys Leu Glu Asp Pro Ala Ile Arg Trp Gln Met 3565 3555 3560 Ala Leu Tyr Lys Asp Leu Pro Asn Arg Thr Asp Asp Thr Ser Asp Pro 3575 3580 Glu Lys Thr Val Glu Arg Val Leu Asp Ile Ala Asn Val Leu Phe His 3590 3595 Leu Glu Gln Lys Ser Lys Arg Val Gly Arg Arg His Tyr Cys Leu Val 3605 3610 3615 Glu His Pro Gln Arg Ser Lys Lys Ala Val Trp His Lys Leu Leu Ser 3620 3625 3630 Lys Gln Arg Lys Arg Ala Val Val Ala Cys Phe Arg Met Ala Pro Leu 3640 3645 Tyr Asn Leu Pro Arg His Arg Ala Val Asn Leu Phe Leu Gln Gly Tyr 3655 3660 Glu Lys Ser Trp Ile Glu Thr Glu Glu His Tyr Phe Glu Asp Lys Leu 3670 3675 3680 Ile Glu Asp Leu Ala Lys Pro Gly Ala Glu Pro Pro Glu Glu Asp Glu 3685 3690 3695 Gly Thr Lys Arg Val Asp Pro Leu His Gln Leu Ile Leu Leu Phe Ser 3700 3705 3710 Arg Thr Ala Leu Thr Glu Lys Cys Lys Leu Glu Glu Asp Phe Leu Tyr 3720 3725 Met Ala Tyr Ala Asp Ile Met Ala Lys Ser Cys His Asp Glu Glu Asp 3735 3740 Asp Asp Gly Glu Glu Val Lys Ser Phe Glu Glu Lys Glu Met Glu 3750 3755 3745 Lys Gln Lys Leu Leu Tyr Gln Gln Ala Arg Leu His Asp Arg Gly Ala 3765 3770 Ala Glu Met Val Leu Gln Thr Ile Ser Ala Ser Lys Gly Glu Thr Gly 3785 3780 3790 Pro Met Val Ala Ala Thr Leu Lys Leu Gly Ile Ala Ile Leu Asn Gly 3800 3805 Gly Asn Ser Thr Val Gln Gln Lys Met Leu Asp Tyr Leu Lys Glu Lys 3815 3820 Lys Asp Val Gly Phe Phe Gln Ser Leu Ala Gly Leu Met Gln Ser Cys 3830 3835 3840 Ser Val Leu Asp Leu Asn Ala Phe Glu Arg Gln Asn Lys Ala Glu Gly 3845 3850 3855 Leu Gly Met Val Thr Glu Glu Gly Ser Gly Glu Lys Val Leu Gln Asp 3860 3865

Asp Glu Phe Thr Cys Asp Leu Phe Arg Phe Leu Gln Leu Cys Glu 3880 3885 Gly His Asn Ser Asp Phe Gln Asn Tyr Leu Arg Thr Gln Thr Gly Asn 3895 3900 Asn Thr Thr Val Asn Ile Ile Ile Ser Thr Val Asp Tyr Leu Leu Arg 3910 3915 Val Gln Glu Ser Ile Ser Asp Phe Tyr Trp Tyr Tyr Ser Gly Lys Asp 3925 3930 3935 Val Ile Asp Glu Gln Gly Gln Arg Asn Phe Ser Lys Ala Ile Gln Val 3940 3945 Ala Lys Gln Val Phe Asn Thr Leu Thr Glu Tyr Ile Gln Gly Pro Cys 3955 3960 3965 Thr Gly Asn Gln Gln Ser Leu Ala His Ser Arg Leu Trp Asp Ala Val 3970 3975 3980 Val Gly Phe Leu His Val Phe Ala His Met Gln Met Lys Leu Ser Gln 3990 3995 Asp Ser Ser Gln Ile Glu Leu Leu Lys Glu Leu Met Asp Leu Gln Lys 4015 4005 4010 Asp Met Val Val Met Leu Leu Ser Met Leu Glu Gly Asn Val Val Asn 4020 4025 4030 Gly Thr Ile Gly Lys Gln Met Val Asp Met Leu Val Glu Ser Ser Asn 4040 4045 4035 Asn Val Glu Met Ile Leu Lys Phe Phe Asp Met Phe Leu Lys Leu Lys 4055 4060 Asp Leu Thr Ser Ser Asp Thr Phe Lys Glu Tyr Asp Pro Asp Gly Lys 4070 4075 4065 Gly Val Ile Ser Lys Arg Asp Phe His Lys Ala Met Glu Ser His Lys 4085 4090 His Tyr Thr Gln Ser Glu Thr Glu Phe Leu Leu Ser Cys Ala Glu Thr 4100 4105 4110 Asp Glu Asn Glu Thr Leu Asp Tyr Glu Glu Phe Val Lys Arg Phe His 4115 4120 4125 Glu Pro Ala Lys Asp Ile Gly Phe Asn Val Ala Val Leu Leu Thr Asn 4135 4140 Leu Ser Glu His Met Pro Asn Asp Thr Arg Leu Gln Thr Phe Leu Glu 4155 4150 4155 4160 Leu Ala Glu Ser Val Leu Asn Tyr Phe Gln Pro Phe Leu Gly Arg Ile 4170 4165 Glu Ile Met Gly Ser Ala Lys Arg Ile Glu Arg Val Tyr Phe Glu Ile 4180 4185 4190 Ser Glu Ser Ser Arg Thr Gln Trp Glu Lys Pro Gln Val Lys Glu Ser 4195 4200 4205 Lys Arg Gln Phe Ile Phe Asp Val Val Asn Glu Gly Gly Glu Lys Glu 4210 4215 4220 Lys Met Glu Leu Phe Val Asn Phe Cys Glu Asp Thr Ile Phe Glu Met 4230 4235 4225 Gln Leu Ala Ala Gln Ile Ser Glu Ser Asp Leu Asn Glu Arg Ser Ala 4245 4250 Asn Lys Glu Glu Ser Glu Lys Glu Arg Pro Glu Glu Gln Gly Pro Arg 4265 4270 Met Ala Phe Phe Ser Ile Leu Thr Val Arg Ser Ala Leu Phe Ala Leu 4275 4280 4285 Arg Tyr Asn Ile Leu Thr Leu Met Arg Met Leu Ser Leu Lys Ser Leu 4295 4290 4300 Lys Lys Gln Met Lys Lys Val Lys Lys Met Thr Val Lys Asp Met Val 4310 4315 Thr Ala Phe Phe Ser Ser Tyr Trp Ser Ile Phe Met Thr Leu Leu His 4325 4330 4335 Phe Val Ala Ser Val Phe Arg Gly Phe Phe Arg Ile Ile Cys Ser Leu 4345 4340 Leu Leu Gly Gly Ser Leu Val Glu Gly Ala Lys Lys Ile Lys Val Ala 4360 4355 Glu Leu Leu Ala Asn Met Pro Asp Pro Thr Gln Asp Glu Val Arg Gly 4375 4380

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165 170 175 Glu Ala Gln Glu Gly Thr Asp Gln Pro Ser Leu His Gly Gln Leu Cys 185 Leu Val Val Leu Gly Ala Lys Asn Leu Pro Val Arg Pro Asp Gly Thr 195 200 205 205 Leu Asn Ser Phe Val Lys Gly Cys Leu Thr Leu Pro Asp Gln Gln Lys 215

Leu Arg Leu Lys Ser Pro Val Leu Arg Lys Gln Ala Cys Pro Gln Trp 235 240 230 Lys His Ser Phe Val Phe Ser Gly Val Thr Pro Ala Gln Leu Arg Gln 255 250 245 Ser Ser Leu Glu Leu Thr Val Trp Asp Gln Ala Leu Phe Gly Met Asn 270 265 260 Asp Arg Leu Leu Gly Gly Thr Arg Leu Gly Ser Lys Gly Asp Thr Ala 275 280 Val Gly Gly Asp Ala Cys Ser Gln Ser Lys Leu Gln Trp Gln Lys Val 295 300 Leu Ser Ser Pro Asn Leu Trp Thr Asp Met Thr Leu Val Leu His 315 319 310

<210> 1905 <211> 697 <212> PRT <213> Homo sapiens

<400> 1905 Lys Glu Asn Lys Lys Ala Arg Asn Leu Arg Met Asn Gln Ser Arg Ser 10 5 Arg Ser Asp Gly Gly Ser Glu Glu Thr Leu Pro Gln Asp His Asn His 25 20 His Glu Asn Glu Arg Arg Trp Gln Gln Glu Arg Leu His Arg Glu Glu 45 35 40 Ala Tyr Tyr Gln Phe Ile Asn Glu Leu Asn Asp Glu Asp Tyr Arg Leu 55 60 Met Arg Asp His Asn Leu Leu Gly Thr Pro Gly Glu Ile Thr Ser Glu 75 70 Glu Leu Gln Gln Arg Leu Asp Gly Val Lys Glu Gln Leu Ala Ser Gln 90 85 Pro Asp Leu Arg Asp Gly Thr Asn Tyr Arg Asp Ser Glu Val Pro Arg 105 110 100 Glu Ser Ser His Glu Asp Ser Leu Leu Glu Trp Leu Asn Thr Phe Arg 125 120 115 Arg Thr Gly Asn Ala Thr Arg Ser Gly Gln Asn Gly Asn Gln Thr Trp 130 . 135 140 Arg Ala Val Ser Arg Thr Asn Pro Asn Asn Gly Glu Phe Arg Phe Ser 150 155 Leu Glu Ile His Val Asn His Glu Asn Arg Gly Phe Glu Ile His Gly 170 165 Glu Asp Tyr Thr Asp Ile Pro Leu Ser Asp Ser Asn Arg Asp His Thr 190 185 180 Ala Asn Arg Gln Gln Arg Ser Thr Ser Pro Val Ala Arg Arg Thr Arg 200 205 195 Ser Gln Thr Ser Val Asn Phe Asn Gly Ser Ser Ser Asn Ile Pro Arg 215 220 Thr Arg Leu Ala Ser Arg Gly Gln Asn Pro Ala Glu Gly Ser Phe Ser 230 235 Thr Leu Gly Arg Leu Arg Asn Gly Ile Gly Gly Ala Ala Gly Ile Pro 250 245 Arg Ala Asn Ala Ser Arg Thr Asn Phe Ser Ser His Thr Asn Gln Ser 260 265 Gly Gly Ser Glu Leu Arg Gln Arg Glu Gly Gln Arg Phe Gly Ala Ala 280 285 275 His Val Trp Glu Asn Gly Ala Arg Ser Asn Val Thr Val Arg Asn Thr 295 300 Asn Gln Arg Leu Glu Pro Ile Arg Leu Arg Ser Thr Ser Asn Ser Arg 310 315 Ser Arg Ser Pro Ile Gln Arg Gln Ser Gly Thr Val Tyr His Asn Ser . 330

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Gln Arg Glu Ser Arg Pro Val Gln Gln Thr Thr Arg Arg Ser Val Arg
                               345
           340
Arg Arg Gly Arg Thr Arg Val Phe Leu Glu Gln Asp Arg Glu Arg Glu
                                              365
       355
                          360
Arg Arg Gly Thr Ala Tyr Thr Pro Phe Ser Asn Ser Arg Leu Val Ser
                      375
                                         380
Arg Ile Thr Val Glu Glu Glu Glu Glu Ser Ser Arg Ser Ser Thr Ala
                                      395
                 390
Val Arg Arg His Pro Thr Ile Thr Leu Asp Leu Gln Val Arg Arg Ile
              405
                                  410
Arg Pro Gly Glu Asn Arg Asp Arg Asp Ser Ile Ala Asn Arg Thr Arg
           420
                             425
Ser Arg Val Gly Leu Ala Glu Asn Thr Val Thr Ile Glu Ser Asn Ser
       435
                          440
Gly Gly Phe Arg Arg Thr Ile Ser Arg Leu Glu Arg Ser Gly Ile Arg
                   455
                                          460
Thr Tyr Val Ser Thr Ile Thr Val Pro Leu Arg Arg Ile Ser Glu Asn
                 470
                                      475
Glu Leu Val Glu Pro Ser Ser Val Ala Leu Arg Ser Ile Leu Arg Gln
                                  490
              485
Ile Met Thr Gly Phe Gly Glu Leu Ser Ser Leu Met Glu Ala Asp Ser
           500
                              505
                                                 510
Glu Ser Glu Leu Gln Arg Asn Gly Gln His Leu Pro Asp Met His Ser
                          520
                                             525
      515
Glu Leu Ser Asn Leu Gly Thr Asp Asn Asn Arg Ser Gln His Arg Glu
                                          540
                      535
Gly Ser Ser Gln Asp Arg Gln Ala Gln Gly Asp Ser Thr Glu Met His
                                      555
                  550
Gly Glu Asn Glu Thr Thr Gln Pro His Thr Arg Asn Ser Asp Ser Arg
              565
                                 570
Gly Gly Arg Gln Leu Arg Asn Pro Asn Asn Leu Val Glu Thr Gly Thr
                               585
           580
Leu Pro Ile Leu Arg Leu Ala His Phe Phe Leu Leu Asn Glu Ser Asp
                          600
                                             605
     595
Asp Asp Asp Arg Ile Arg Gly Leu Thr Lys Glu Gln Ile Asp Asn Leu
                      615
                                          620
Ser Thr Arg His Tyr Glu His Asn Ser Ile Asp Ser Glu Leu Gly Lys
                  630
                                       635
Ile Cys Ser Val Cys Ile Ser Asp Tyr Val Thr Gly Asn Lys Leu Arg
               645
                                 650
Gln Leu Pro Cys Met His Glu Phe His Ile His Cys Ile Asp Arg Trp
                                                 670
         660
                      665
Leu Ser Glu Asn Cys Thr Cys Pro Ile Cys Arg Gln Pro Val Leu Gly
                          680
       675
Ser Asn Ile Ala Asn Asn Gly
    690
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<210> 1906 <211> 152 <212> PRT <213> Homo sapiens

Pro Lys Pro Glu Pro Lys Pro Arg Lys Thr Ser Ala Lys Lys Glu Pro 70 75 Gly Ala Lys Ile Ser Arg Gly Ala Lys Gly Lys Lys Glu Glu Lys Gln 85 90 Glu Ala Gly Lys Glu Gly Thr Ala Pro Ser Glu Asn Gly Glu Thr Lys 100 105 Ala Glu Glu Ile His Ile Ser Arg Ser Thr Val Asn Val Ser Thr Ser 115 120 125 Arg Gly Thr Pro Pro Ser Thr Leu Ser Val Lys Gly Gln Ile Glu Thr 130 135 Val Arg Val Lys Gly Thr Glu Asn 150 152

<210> 1907 <211> 91 <212> PRT <213> Homo sapiens

<400> 1907 Ala Arg Arg Phe Ser Cys Leu Thr Leu Gln Thr Ser Trp Gly His Arg 5 10 His Gly Pro Pro Arg Pro Ala Asn Phe Val Phe Leu Val Glu Thr Gly 25 3.0 Phe Leu His Ile Gly Gln Ala Gly His Lys Leu Pro Thr Ser Gly Asp 35 40 Pro Pro Ala Ser Ala Ser Gln Ser Ala Arg Ile Thr Gly Met Ser His 50 55 60 Arg Thr Trp Phe Leu Ala Ser Phe Leu Ile Asp Ser Cys Lys Asn Phe 70 Ile Val Tyr Lys Ile Met Tyr Thr Leu

<210> 1908 <211> 417 <212> PRT <213> Homo sapiens

<400> 1908 Thr Tyr Arg His Ala Glu Arg Glu His Pro Glu Thr Ser Ser Ala Thr 5 Lys Val Ser Tyr Asp Tyr Arg His Lys Arg Pro Lys Leu Leu Asp Gly 20 25 Asp Gln Asp Phe Ser Asp Gly Arg Thr Gln Lys Tyr Cys Lys Glu Glu 40 Asp Arg Lys Tyr Ser Phe Gln Lys Gly Pro Leu Asn Arg Glu Leu Asp 55 Cys Phe Asn Thr Gly Arg Gly Arg Glu Thr Gln Asp Gly Gln Val Lys 70 75 Glu Pro Phe Lys Pro Ser Lys Lys Asp Ser Ile Ala Cys Thr Tyr Ser 85 90 Asn Lys Asn Asp Val Asp Leu Arg Ser Ser Asn Asp Lys Trp Lys Glu 100 105 Lys Lys Lys Glu Gly Asp Cys Arg Lys Glu Ser Asn Ser Ser Ser 115 120 125 Asn Gln Leu Asp Lys Ser Gln Lys Leu Pro Asp Val Lys Pro Ser Pro 135 140 Ile Asn Leu Arg Lys Lys Ser Leu Thr Val Lys Val Asp Val Lys Lys 150 155

Thr Val Asp Thr Phe Arg Val Ala Ser Ser Tyr Ser Thr Glu Arg Gln 170 Met Ser His Asp Leu Val Ala Val Gly Arg Lys Ser Glu Asn Phe His 185 180 Pro Val Phe Glu His Leu Asp Ser Thr Gln Asn Thr Glu Asn Lys Pro 195 200 205 Thr Gly Glu Phe Ala Gln Glu Ile Ile Thr Ile Ile His Gln Val Lys 210 215 220 Ala Asn Tyr Phe Pro Ser Pro Gly Ile Thr Leu His Glu Arg Phe Ser 225 230 235 240 Lys Met Ala Asp Ile His Lys Ala Asp Val Asn Glu Ile Pro Leu Asn 245 250 255 Ser Asp Pro Glu Ile His Arg Arg Ile Asp Met Ser Leu Ala Glu Leu 265 Gln Ser Lys Gln Ala Val Ile Tyr Glu Ser Glu Gln Thr Leu Ile Lys 280 285 275 Ile Ile Asp Pro Asn Asp Leu Arg His Asp Ile Glu Arg Arg Arg Lys 295 300 Glu Arg Leu Gln Asn Glu Asp Glu His Ile Phe His Ile Ala Ser Ala 310 315 Ala Glu Arg Asp Asp Gln Asn Ser Ser Phe Ser Lys Asn Tyr Thr Thr 325 330 Gln Arg Lys Asp Ile Ile Thr His Lys Pro Phe Glu Val Glu Gly Asn 340 345 350 His Arg Asn Thr Arg Val Arg Pro Phe Lys Ser Asn Phe Arg Gly Gly 360 365 Arg Cys Gln Pro Asn Tyr Lys Ser Gly Leu Val Gln Lys Ser Leu Tyr 375 380 370 Ile Gln Ala Lys Tyr Gln Arg Leu Arg Phe Thr Gly Pro Arg Gly Phe 395 390 Ile Thr His Lys Phe Arg Glu Arg Leu Met Arg Lys Lys Val Pro 410

<210> 1909 <211> 108 <212> PRT <213> Homo sapiens

<210> 1910 <211> 526 <212> PRT

## <213> Homo sapiens

<400> 1910 Thr Leu Ser Leu Leu Glu Arg Val Leu Met Lys Asp Ile Val Thr Pro Val Pro Gln Glu Glu Val Lys Thr Val Ile Arg Lys Cys Leu Glu Gln Ala Ala Leu Val Asn Tyr Ser Arg Leu Ser Glu Tyr Ala Lys Ile Glu Gly Lys Lys Arg Glu Met Tyr Glu Leu Pro Val Phe Cys Leu Ala Ser Gln Val Met Asp Leu Thr Ile Gln Asn Gln Lys Asp Ala Glu Asn Val Gly Arg Leu Ile Thr Pro Ala Lys Lys Leu Glu Asp Thr Ile Arg Leu Ala Glu Leu Val Ile Glu Val Leu Gln Gln Asn Glu Glu His His Ala Glu Ala Phe Ala Trp Trp Ser Asp Leu Met Val Glu His Ala Glu Thr Phe Leu Ser Leu Phe Ala Val Asp Met Asp Ala Ala Leu Glu Val Gln Pro Pro Asp Thr Trp Asp Ser Phe Pro Leu Phe Gln Leu Leu Asn Asp Phe Leu Arg Thr Gly Leu Leu Ile Cys Gly Asn Gly Lys Phe His Lys His Leu Gln Asp Leu Phe Ala Pro Leu Val Val Arg Tyr Met Trp Asp Leu Asp Gly Ser Ser Pro Ile Ala Gln Ser Ile His Arg Gly Leu Leu Ser Arg Glu Ser Trp Glu Pro Val Asn Asn Gly Ser Gly Thr Ser Glu Asp Leu Phe Trp Lys Leu Asp Ala Leu Gln Thr Phe Ile Arg Asp Leu His Trp Pro Glu Glu Glu Phe Gly Lys His Leu Glu Gln Arg Leu Lys Leu Met Ala Ser Asp Met Ile Glu Ser Cys Val Lys Arg Thr Arg Ile Ala Phe Glu Val Lys Leu Gln Lys Thr Ser Ser Ile Gln Gln Ile Phe Arg Val Pro Gln Phe Asn Met Ala Pro Cys Phe Asn Val Met Gly Leu Met Ala Lys Gly Ser Ile Gln Pro Lys Leu Cys Ser Met Glu Met Gly Gln Glu Phe Ala Lys Met Trp His Gln Tyr His Ser Lys Ile Asp Glu Leu Ile Glu Glu Thr Val Lys Glu Met Ile Thr Leu Leu Val Ala Lys Phe Val Thr Ile Leu Glu Gly Val Leu Ala Lys Leu Ser Arg Tyr Asp Glu Gly Thr Leu Phe Ser Ser Phe Leu Ser Phe Thr Val Lys Ala Ala Ser Lys Tyr Val Asp Val Pro Lys Pro Gly Met Asp Val Ala Asp Ala Tyr Val Thr Phe Val Arg His Ser Gln Asp Val Leu Arg Asp Lys Val Asn Glu Glu Met Tyr Ile Glu Arg Leu Phe Asp Gln Trp Tyr Asn Ser Ser Met Asn Val Ile Cys Thr Trp Leu Thr Asp Arg Met Asp Leu Gln Leu His Ile Tyr Gln Leu Lys Thr Leu Ile Arg Met Val Lys Lys Thr Tyr Arg Asp Phe Arg Leu Gln Gly Val Leu Asp Ser Thr Leu Asn Ser 

Lys Thr Tyr Glu Thr Ile Arg Asn Arg Leu Thr Val Glu Glu Ala Thr
485 490 495

Ala Ser Val Ser Glu Gly Gly Gly Leu Gln Gly Ile Ser Met Lys Asp
500 505 510

Ser Asp Glu Glu Asp Glu Glu Asp Asp
515 520 521

<210> 1911 <211> 216 <212> PRT <213> Homo sapiens

<400> 1911 Ser Glu Leu Val Gln Phe Leu Leu Ile Lys Asp Gln Lys Lys Ile Pro 10 Ile Lys Arg Ala Asp Ile Leu Lys His Val Ile Gly Asp Tyr Lys Asp Ile Phe Pro Asp Leu Phe Lys Arg Ala Ala Glu Arg Leu Gln Tyr Val 40 Phe Gly Tyr Lys Leu Val Glu Leu Glu Pro Lys Ser Asn Thr Tyr Ile 55 60 Leu Ile Asn Thr Leu Glu Pro Val Glu Glu Asp Ala Glu Met Arg Gly 70 Asp Gln Gly Thr Pro Thr Thr Gly Leu Leu Met Ile Val Leu Gly Leu .90 85 Ile Phe Met Lys Gly Asn Thr Ile Lys Glu Thr Glu Ala Trp Asp Phe 105 · 100 110 Leu Leu Ala Leu Gly Val Tyr Pro Thr Lys Lys His Leu Ile Phe Gly 115 120 125 Asp Pro Lys Lys Leu Ile Thr Glu Asp Phe Val Arg Gln Arg Tyr Leu 135 140 Glu Tyr Arg Arg Ile Pro His Thr Asp Pro Val Asp Tyr Glu Phe Gln 150 155 Trp Gly Pro Arg Thr Asn Leu Glu Thr Ser Lys Met Lys Val Leu Lys 165 170 Phe Val Ala Lys Val His Asn Gln Asp Pro Lys Asp Trp Pro Ala Gln 180 185 190 Tyr Cys Glu Ala Leu Ala Asp Glu Glu Asn Arg Ala Arg Pro Gln Pro 200 195 Ser Gly Pro Ala Pro Ser Ser 210

<210> 1912 <211> 499 <212> PRT <213> Homo sapiens

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Arg Val His Ser Val Ala Gly Pro Ser Gln Trp Leu Gly Lys Pro Leu
                                 90
                                                   95
 Thr Thr Arg Leu Leu Phe Pro Ala Ala Pro Cys Cys Cys Arg Pro His
          100
                            105
 Tyr Leu Phe Leu Ala Ala Ser Gly Pro Arg Ser Leu Ser Thr Ser Ala
      115
                         120
                                          125
 Ile Ser Phe Ala Glu Val Gln Val Gln Ala Pro Pro Val Val Ala Ala
                     135
                                     140
Thr Pro Ser Pro Thr Ala Val Pro Glu Val Ala Ser Gly Glu Thr Ala
                150
                          155
Asp Val Val Gln Thr Ala Ala Glu Gln Ser Phe Ala Glu Leu Gly Leu
             165
                                170
                                                 175
Gly Ser Tyr Thr Pro Val Gly Leu Ile Gln Asn Leu Leu Glu Phe Met
          180
                           185
His Val Asp Leu Gly Leu Pro Trp Trp Gly Ala Ile Ala Ala Cys Thr
                        200
                                          205
Val Phe Ala Arg Cys Leu Ile Phe Pro Leu Ile Val Thr Gly Gln Arg
            215
                                       220
Glu Ala Ala Arg Ile His Asn His Leu Pro Glu Ile Gln Lys Phe Ser
         230
                                  235
Ser Arg Ile Arg Glu Ala Lys Leu Ala Gly Asp His Ile Glu Tyr Tyr
                       250 . 255
Lys Ala Ser Ser Glu Met Ala Leu Tyr Gln Lys Lys His Gly Ile Lys
                   265 270
Leu Tyr Lys Pro Leu Ile Leu Pro Val Thr Gln Ala Pro Ile Phe Ile
       275
                       280
                                          285
Ser Phe Phe Ile Ala Leu Arg Glu Met Ala Asn Leu Pro Val Pro Ser
                   295
                                      300
Leu Gln Thr Gly Gly Leu Trp Trp Phe Gln Asp Leu Thr Val Ser Asp
                310
                                 315
Pro Ile Tyr Ile Leu Pro Leu Ala Val Thr Ala Thr Met Trp Ala Val
                      330
             325
Leu Glu Leu Gly Ala Glu Thr Gly Val Gln Ser Ser Asp Leu Gln Trp
         340
                           345
Met Arg Asn Val Ile Arg Met Met Pro Leu Ile Thr Leu Pro Ile Thr
      355
                        360
                                        365
Met His Phe Pro Thr Ala Val Phe Met Tyr Trp Leu Ser Ser Asn Leu
                     375
                                      380
Phe Ser Leu Val Gln Val Ser Cys Leu Arg Ile Pro Ala Val Arg Thr
                390
                                   395
Val Leu Lys Ile Pro Gln Arg Val Val His Asp Leu Asp Lys Leu Pro
                        410
             405
Pro Arg Glu Gly Phe Leu Glu Ser Phe Lys Lys Gly Trp Lys Asn Ala
         420
                            425
                                             430
Glu Met Thr Arg Gln Leu Arg Glu Arg Glu Gln Arg Met Arg Asn Gln
      435
                        440
Leu Glu Leu Ala Ala Arg Gly Pro Leu Arg Gln Thr Phe Thr His Asn
                    455
                             460
Pro Leu Leu Gln Pro Gly Lys Asp Asn Pro Pro Asn Ile Pro Ser Ser
               470
                                 475
Ser Ser Ser Ser Lys Pro Lys Ser Lys Tyr Pro Trp His Asp Thr
            485
                              490
Leu Gly
  498
```

<210> 1913 <211> 172 <212> PRT <213> Homo sapiens

<400> 1913

Met Gly Gly Leu Ala Pro Thr Gln Thr Leu Glu Pro Thr Arg Glu Tyr 5 10 Gln Asn Thr Gln Leu Ser Val Ser Tyr Leu Leu Pro Glu Gln Asn Thr 20 25 His Gly Thr Arg Arg Thr Leu Ser Ser Gly Pro Ser Asn Asn Leu Pro 40 Leu Pro Leu Ser Ser Ser Ala Thr Met Pro Ser Met Gln Cys Lys His 55 Arg Ser Pro Asn Gly Gly Leu Phe Arg Gln Ser Pro Val Lys Thr Pro 70 Pro Ile Pro Met Ser Phe Gln Pro Val Pro Gly Gly Val Leu Pro Arg 85 90 95 Gly Ser Gly Asn Pro Pro His Gly Thr Ser Ile Leu Thr Ala Pro Pro 100 105 110 Ala Leu Leu Pro His Pro Pro Thr His Pro Thr Gln Gln Ser Phe Leu 120 Ile Gln Glu Asn Asn Asn Thr Asn His Thr His Ser His Thr His Thr 135 140 Tyr Thr Glu Thr Leu Ser Phe Phe Leu Tyr Ile Cys Val Asn Asn Asp 150 155 Arg Met Glu Trp Gly Lys Ser Val Phe 165

<210> 1914 <211> 122 <212> PRT <213> Homo sapiens

<400> 1914

Ile Leu Lys Arg Lys Leu Ser Ser Leu Asn Ser Glu Val Ser Thr Ile 1 5 10 15 Gln Asn Thr Arg Met Leu Ala Phe Lys Ala Thr Ala Gln Leu Phe Ile Leu Gly Cys Thr Trp Cys Leu Gly Leu Leu Gln Val Gly Pro Ala Ala 35 40 Gln Val Met Ala Tyr Leu Phe Thr Ile Ile Asn Ser Leu Gln Gly Phe 55 60 Phe Ile Phe Leu Val Tyr Cys Leu Leu Ser Gln Gln Val Gln Lys Gln 70 75 Tyr Gln Lys Trp Phe Arg Glu Ile Val Lys Ser Lys Ser Glu Ser Glu 85 90 Thr Tyr Thr Leu Ser Ser Lys Met Gly Pro Asp Ser Lys Pro Ser Glu 100 105 110 Gly Asp Val Phe Pro Arg Thr Ser Glu 115 120 121

<210> 1915 <211> 107 <212> PRT <213> Homo sapiens

<400> 1915

<210> 1916 <211> 270 <212> PRT <213> Homo sapiens

<400> 1916 Leu Asn Ser Ser Gln Lys Leu Ala Cys Leu Ile Gly Val Glu Gly Gly 5 10 15 His Ser Leu Asp Ser Ser Leu Ser Val Leu Arg Ser Phe Tyr Val Leu 20 25 Gly Val Arg Tyr Leu Thr Leu Thr Phe Thr Cys Ser Thr Pro Trp Ala 35 40 Glu Ser Ser Thr Lys Phe Arg His His Met Tyr Thr Asn Val Ser Gly 55 60 Leu Thr Ser Phe Gly Glu Lys Val Val Glu Glu Leu Asn Arg Leu Gly 70 75 Met Met Ile Asp Leu Ser Tyr Ala Ser Asp Thr Leu Ile Arg Arg Val 85 90 95 Leu Glu Val Ser Gln Ala Pro Val Ile Phe Ser His Ser Ala Ala Arg 100 105 110 Ala Val Cys Asp Asn Leu Leu Asn Val Pro Asp Asp Ile Leu Gln Leu 115 120 125 Leu Lys Lys Asn Gly Gly Ile Val Met Val Thr Leu Ser Met Gly Val 135 140 Leu Gln Cys Asn Leu Leu Ala Asn Val Ser Thr Val Ala Asp His Phe 150 155 Asp His Ile Arg Ala Val Ile Gly Ser Glu Phe Ile Gly Ile Gly Gly 165 170 175 Asn Tyr Asp Gly Thr Gly Arg Phe Pro Gln Gly Leu Glu Asp Val Ser Thr Tyr Pro Val Leu Ile Glu Glu Leu Leu Ser Arg Ser Trp Ser Glu 200 205 Glu Glu Leu Gln Gly Val Leu Arg Gly Asn Leu Leu Arg Val Phe Arg 215 220 Gln Val Glu Lys Val Arg Glu Glu Ser Arg Ala Gln Ser Pro Val Glu 230 235 Ala Glu Phe Pro Tyr Gly Gln Leu Ser Thr Ser Cys His Phe His Leu 245 250 255 Gly Ala Ser Glu Trp Thr Pro Arg Leu Leu Ile Trp Arg 265

<210> 1917 <211> 368 <212> PRT <213> Homo sapiens

<400> 1917
Gly Ala Thr Pro Leu Gly Ser Val Gly Gly Arg Thr Gly Lys Met Asp
1 5 10 15 .

Ala Ala Thr Leu Thr Tyr Asp Thr Leu Arg Phe Ala Glu Phe Glu Asp 25 Phe Pro Glu Thr Ser Glu Pro Val Trp Ile Leu Gly Arg Lys Tyr Ser Ile Phe Thr Glu Lys Asp Glu Ile Leu Ser Asp Val Ala Ser Arg Leu 55 Trp Phe Thr Tyr Arg Lys Asn Phe Pro Ala Ile Gly Gly Thr Gly Pro 70 75 Thr Ser Asp Thr Gly Trp Gly Cys Met Leu Arg Cys Gly Gln Met Ile 90 85 Phe Ala Gln Ala Leu Val Cys Arg His Leu Gly Arg Asp Trp Arg Trp 100 . 105 110 Thr Gln Arg Lys Arg Gln Pro Asp Ser Tyr Phe Ser Val Leu Asn Ala 120 Phe Ile Asp Arg Lys Asp Ser Tyr Tyr Ser Ile His Gln Ile Ala Gln 135 140 Met Gly Val Gly Glu Gly Lys Ser Ile Gly Gln Trp Tyr Gly Pro Asn 150 155 Thr Val Ala Gln Val Leu Lys Lys Leu Ala Val Phe Asp Thr Trp Ser 165 170 Ser Leu Ala Val His Ile Ala Met Asp Asn Thr Val Val Met Glu Glu _. 185 190 180 Ile Arg Arg Leu Cys Arg Thr Ser Val Pro Cys Ala Gly Ala Thr Ala 200 205 195 Phe Pro Ala Asp Ser Asp Arg His Cys Asn Gly Phe Pro Ala Gly Ala 215 220 Glu Val Thr Asn Arg Pro Ser Pro Trp Arg Pro Leu Val Leu Leu Ile 230 235 Pro Leu Arg Leu Gly Leu Thr Asp Ile Asn Glu Ala Tyr Val Glu Thr 250 245 Leu Lys His Cys Phe Met Met Pro Gln Ser Leu Gly Val Ile Gly Gly 260 265 270Lys Pro Asn Ser Ala His Tyr Phe Ile Gly Tyr Val Gly Glu Glu Leu 275 280 285 280 Ile Tyr Leu Asp Pro His Thr Thr Gln Pro Ala Val Glu Pro Thr Asp 295 300 Gly Cys Phe Ile Pro Asp Glu Ser Phe His Cys Gln His Pro Pro Cys 310 315 Arg Met Ser Ile Ala Glu Leu Asp Pro Ser Ile Ala Val Val Arg Gly 325 330 335 Gly His Leu Ser Thr Gln Ala Phe Gly Ala Glu Cys Cys Leu Gly Met 340 345 Thr Arg Lys Thr Phe Gly Phe Leu Arg Phe Phe Phe Ser Met Leu Gly 365

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<210> 1918
<211> 56
<212> PRT
<213> Homo sapiens
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<210> 1919 <211> 116 <212> PRT <213> Homo sapiens

<400> 1919 Trp Thr Phe Cys Leu Phe Leu Trp Trp Val Pro Glu Ser Ala Arg Trp ı 5 10 Leu Leu Thr Gln Gly His Val Lys Glu Ala His Arg Tyr Leu Leu His 25 Cys Ala Arg Leu Asn Gly Arg Pro Val Cys Glu Asp Ser Phe Ser Gln 35 40 Glu Val Arg Val Asn Val Cys Val Ser Met His Ile Cys Val Trp Trp 55 Gly Val Gly Cys Val Lys Cys Leu Pro Pro Arg Ala His His Ile Trp 65 70 75 80 Gln Glu Lys Pro Leu Gly Pro His Arg Thr Val Thr Glu Ser Lys Leu 85 90 Glu Ala Glu Gly Lys Thr Lys Glu Lys Ala Arg Glu Lys Glu Arg Lys Lys Lys Ser . 115

<210> 1920 <211> 288 <212> PRT <213> Homo sapiens

<400> 1920 Arg Ser Gly Gln Gly Lys Val Tyr Gly Leu Ile Gly Arg Arg Arg Phe 10 Gln Gln Met Asp Val Leu Glu Gly Leu Asn Leu Leu Ile Thr Ile Ser Gly Lys Arg Asn Lys Leu Arg Val Tyr Tyr Leu Ser Trp Leu Arg Asn 40 Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys Lys Gln Gly Trp Thr 55 Thr Val Gly Asp Met Glu Gly Cys Gly His Tyr Arg Val Val Lys Tyr 75 70 Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys Ser Ser Val Glu Val 85 90 Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe Met Ala Phe Lys Ser 105 Phe Ala Asp Leu Pro His Arg Pro Leu Leu Val Asp Leu Thr Val Glu 115 120 125 Glu Gly Gln Arg Leu Lys Val Ile Tyr Gly Ser Ser Ala Gly Phe His 130 135 140 135 Ala Val Asp Val Asp Ser Gly Asn Ser Tyr Asp Ile Tyr Ile Pro Val 150 His Ile Gln Ser Gln Ile Thr Pro His Ala Ile Ile Phe Leu Pro Asn 170 165 Thr Asp Gly Met Glu Met Leu Leu Cys Tyr Glu Asp Glu Gly Val Tyr 180 185 190 185 180 Val Asn Thr Tyr Gly Arg Ile Ile Lys Asp Val Val Leu Gln Trp Gly 195 200 205 Glu Met Pro Thr Ser Val Ala Tyr Ile Cys Ser Asn Gln Ile Met Gly 215

Trp Gly Glu Lys Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu 230 230 240

Asp Gly Val Phe Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys 255

Glu Arg Asn Asp Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly Ser 260 270

Ser Gln Val Tyr Phe Met Thr Leu Asn Arg Asn Cys Ile Met Asn Trp 275 280 285 288

<210> 1921 <211> 172 <212> PRT <213> Homo sapiens

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<400> 1921 Ala Ser Arg Glu Met Asp Val Thr Lys Val Cys Gly Glu Met Arg Tyr 10 Gln Leu Asn Lys Thr Asn Met Glu Lys Asp Glu Ala Glu Lys Glu His 20 25 Arg Glu Phe Arg Ala Lys Thr Asn Arg Asp Leu Glu Ile Lys Asp Gln 40 35 45 Glu Ile Glu Lys Leu Arg Ile Glu Leu Asp Glu Ser Lys Gln His Leu 55 60 Glu Gln Glu Gln Lys Ala Ala Leu Ala Arg Glu Glu Cys Leu Arg Leu Thr Glu Leu Leu Gly Glu Ser Glu His Gln Leu His Leu Thr Arg 85 90 Gln Glu Lys Asp Ser Ile Gln Gln Ser Phe Ser Lys Glu Ala Lys Ala 100 105 Gln Ala Leu Gln Ala Gln Gln Arg Glu Gln Glu Leu Thr Gln Lys Ile 115 120 125 Gln Gln Met Glu Ala Gln His Asp Lys Thr Glu Asn Glu Gln Tyr Leu 135 140 Leu Leu Thr Ser Gln Asn Thr Phe Leu Thr Lys Leu Lys Glu Glu Cys 155 145 150 Cys Thr Leu Ala Lys Lys Leu Glu Gln Ile Ser Gln 165

<210> 1922 <211> 375 <212> PRT <213> Homo sapiens

Phe Ala Gln Ala Leu Val Cys Arg His Leu Gly Arg Asp Trp Arg Trp 105 110 Thr Gln Arg Lys Arg Gln Pro Asp Ser Tyr Phe Ser Val Leu Asn Ala 115 120 125 Phe Ile Asp Arg Lys Asp Ser Tyr Tyr Ser Ile His Gln Ile Ala Gln 135 140 Met Gly Val Gly Glu Gly Lys Ser Ile Gly Gln Trp Tyr Gly Pro Asn 150 155 Thr Val Ala Gln Val Leu Lys Lys Leu Ala Val Phe Asp Thr Trp Ser 170 175 165 Ser Leu Ala Val His Ile Ala Met Asp Asn Thr Val Val Met Glu Glu 180 185 Ile Arg Arg Leu Cys Arg Thr Ser Val Pro Cys Ala Gly Ala Thr Ala 200 205 Phe Pro Ala Asp Ser Asp Arg His Cys Asn Gly Phe Pro Ala Gly Ala 215 220 Glu Val Thr Asn Arg Pro Ser Pro Trp Arg Pro Leu Val Leu Leu Ile 230 235 Pro Leu Arg Leu Gly Leu Thr Asp Ile Asn Glu Ala Tyr Val Glu Thr 245 250 Leu Lys His Cys Phe His Gly Trp Pro Gln Phe Pro Gly Val Val His 270 265 Arg Glu Gly Lys Pro Asn Ser Ala His Tyr Phe Ile Gly Tyr Val Gly 275 280 285 Glu Glu Leu Ile Tyr Leu Asp Pro His Thr Thr Gln Pro Ala Val Glu 295 300 Pro Thr Asp Gly Cys Phe Ile Pro Asp Glu Ser Phe His Cys Gln His 310 315 Pro Pro Cys Arg Met Ser Ile Ala Glu Leu Asp Pro Ser Ile Ala Val 330 Val Arg Gly Gly His Leu Ser Thr Gln Ala Phe Gly Ala Glu Cys Cys 340 345 350 Leu Gly Met Thr Arg Lys Thr Phe Gly Phe Leu Arg Phe Phe Phe Ser 360 Met Leu Gly 370 371

<210> 1923 <211> 235 <212> PRT <213> Homo sapiens

<400> 1923 Gly Gly Val Pro Val Gly Leu Ala Ser Lys Pro Phe Gln Ile Leu Tyr 10 Gly His Thr Asn Glu Val Leu Ser Val Gly Ile Ser Thr Glu Leu Asp 20 25 Met Ala Val Ser Gly Ser Arg Asp Gly Thr Val Ile Ile His Thr Ile 35 40 Gln Lys Gly Gln Tyr Met Arg Thr Leu Arg Pro Pro Cys Glu Ser Ser 55 60 Leu Phe Leu Thr Ile Pro Asn Leu Ala Ile Ser Trp Glu Gly His Ile 70 75 Val Val Tyr Ser Ser Thr Glu Glu Lys Thr Thr Leu Lys Glu Arg Met 85 90 His Tyr Ile Cys Phe Ser Ile Asn Gly Lys Tyr Leu Gly Ser Gln Ile 105 Leu Lys Glu Gln Val Ser Asp Ile Cys Ile Ile Gly Glu His Ile Val 115 120 125 Thr Gly Ser Ile Gln Gly Phe Leu Ser Ile Arg Asp Leu His Ser Leu 135 140

<210> 1924 <211> 292 <212> PRT <213> Homo sapiens

<400> 1924 Met Asp Thr Leu Glu Glu Val Thr Trp Ala Asn Gly Ser Thr Ala Leu 10 Pro Pro Pro Leu Ala Pro Asn Ile Ser Val Pro His Arg Cys Leu Leu 20 25 Leu Leu Tyr Glu Asp Ile Gly Thr Ser Arg Val Arg Tyr Trp Asp Leu 35 40 Leu Leu Ile Pro Asn Val Leu Phe Leu Ile Phe Leu Leu Trp Lys 55 60 Leu Pro Ser Ala Arg Ala Lys Ile Arg Ile Thr Ser Ser Pro Ile Phe Ile Thr Phe Tyr Ile Leu Val Phe Val Val Ala Leu Val Gly Ile Ala 90 85 Arg Ala Val Val Ser Met Thr Val Ser Thr Ser Asn Ala Ala Thr Val 100 105 110 Ala Asp Lys Ile Leu Trp Glu Ile Thr Arg Phe Phe Leu Leu Ala Ile 115 120 Glu Leu Ser Val Ile Ile Leu Gly Leu Ala Phe Gly His Leu Glu Ser 135 140 Lys Ser Ser Ile Lys Arg Val Leu Ala Ile Thr Thr Val Leu Ser Leu 145 150 155 . 160 Ala Tyr Ser Val Thr Gln Gly Thr Leu Glu Ile Leu Tyr Pro Asp Ala 165 170 His Leu Ser Ala Glu Asp Phe Asn Ile Tyr Gly His Gly Gly Arg Gln 185 190 Phe Trp Leu Val Ser Ser Cys Phe Phe Phe Leu Val Tyr Ser Leu Val 195 205 200 Val Ile Leu Pro Lys Thr Pro Leu Lys Glu Arg Ile Ser Leu Pro Ser 210 215 220 Arg Arg Ser Phe Tyr Val Tyr Ala Gly Ile Leu Ala Leu Leu Asn Leu 230 235 Leu Gln Gly Leu Gly Ser Val Leu Leu Cys Phe Asp Ile Ile Glu Gly 245 250 255 Leu Cys Cys Val Asp Ala Thr Thr Phe Leu Tyr Phe Ser Phe Phe Ala 260 265 270 Pro Leu Ile Tyr Val Ala Phe Leu Arg Gly Phe Phe Gly Ser Glu Pro Lys Ile Leu Phe 290 292

<210> 1925

<211> 175 <212> PRT <213> Homo sapiens

<400> 1925 Gly Cys Trp Trp Arg His Pro Trp Leu Ala Ser Gln Arg Asp Cys Leu 10 Asp Cys Arg Ile Gln Leu Ala Glu Lys Phe Val Lys Ala Val Ser Lys 20 25 30 Pro Ser Arg Pro Asp Met Asn Pro Ile Arg Val Lys Glu Val Tyr Arg 35 40 Leu Glu Glu Met Glu Lys Ile Phe Val Arg Leu Glu Met Lys Ile Ile 60 Lys Gly Ser Ser Gly Thr Pro Lys Leu Ser Tyr Thr Gly Arg Asp Asp 70 75 Arg His Phe Val Pro Met Gly Leu Tyr Ile Val Arg Thr Val Asn Glu 85 90 Pro Trp Thr Met Gly Phe Ser Lys Ser Phe Lys Lys Lys Phe Phe Tyr 100 105 110 Asn Lys Lys Thr Lys Asp Ser Thr Phe Asp Leu Pro Ala Asp Ser Ile 115 120 125 Ala Pro Phe His Ile Cys Tyr Tyr Gly Arg Leu Phe Trp Glu Trp Gly 130 135 140 Asp Gly Ile Arg Val His Asp Ser Gln Lys Pro Gln Asp Gln Asp Lys 145 150 155 160 Leu Ser Lys Glu Asp Val Leu Ser Phe Ile Gln Met His Arg Ala 165 170

<210> 1926 <211> 148 <212> PRT <213> Homo sapiens

<400> 1926 Gln Val Glu Gly Arg Gln Gly Arg Glu Val Lys Arg Thr Ala Trp Arg 1 5 10 15 Ile Ser Pro Val Trp Arg Pro Ala Arg Cys Arg Arg Arg Ser Thr Pro 25 Gln Pro Pro Glu Pro Gly Ala Gln Gln Gln Glu Arg His Arg Gln Gly 40 Glu Ala Pro Met Gln Ala Leu Asp Pro Arg Ala Glu Pro Gly Pro Gln 55 Ala Gln Ser His Ala Ala Cys Gln Pro Glu Pro Glu Pro Pro Arg Val 70 75 Leu Leu Asp Pro Thr Ala Ala Arg Gly Gly Val Gln Gly Arg Pro Gly 85 90 Leu Ser Arg His Pro Gly Leu Ala Pro His Pro Gln Thr His Thr Pro 100 105 110 Trp Pro Gln Ser Gly Arg Leu Pro Cys Ala Ser Glu Pro Leu Pro Leu 115 120 125 Gly Gly Ile Arg Pro Thr Pro Gly Leu Glu Pro Lys Gly Arg Asp Leu 135 140 Met 145

<210> 1927 <211> 95 <212> PRT

## <213> Homo sapiens

<210> 1928 <211> 76 <212> PRT <213> Homo sapiens

<210> 1929 <211> 75 <212> PRT <213> Homo sapiens

<210> 1930 <211> 107 <212> PRT <213> Homo sapiens

<400> 1930 Ser Arg Leu Lys Pro Tyr Ser Thr Asn Val Thr Ala Lys Lys Leu Pro 10 Ala Thr Asn Ile Pro Asn Leu Asp Cys Phe Thr Ala Lys Leu Tyr Gln 20 25 Val Phe Lys Lys Gly Ile Ile His Ile Leu His Glu Leu Phe Gln Asn 35 40 Lys Glu Glu Gly Ala Phe Pro Asn Ser Phe Tyr Glu Ala Ser Phe Thr 55 60 Leu Arg Pro Lys Ser Asp Arg Asp Ile Ala Lys Glu Glu Ser Tyr Ser 70 75 Thr Ile Ser Leu Leu Ser Thr Asp Thr Lys Ile Leu Met Ser Lys Tyr 85 Lys Gln Leu Lys Ser Ser Asp Leu 100

<210> 1931 <211> 224 <212> PRT <213> Homo sapiens

<400> 1931 Val Leu Val His Arg Gln Cys Gly Gly Ile Leu Arg Leu Arg Lys Glu Ala Val Ser Val Leu Asp Ser Ala Asp Ile Glu Val Thr Asp Ser 20 25 Arg Leu Pro His Ala Thr Ile Val Asp His Arg Pro Gln His Arg Trp 40 45 Leu Glu Thr Cys Asn Ala Pro Pro Gln Leu Ile Gln Gly Lys Ala Arg 50 · 55 60 Ser Ala Pro Lys Pro Ser Gln Ala Ser Gly His Phe Ser Val Glu Leu 70 75 Val Arg Gly Tyr Ala Gly Phe Gly Leu Thr Leu Gly Gly Gly Arg Asp 90 Val Ala Gly Asp Thr Pro Leu Ala Val Arg Gly Leu Leu Lys Asp Gly 105 110 Pro Ala Gln Arg Cys Gly Arg Leu Glu Val Gly Asp Leu Val Leu His Ile Asn Gly Glu Ser Thr Gln Gly Leu Thr His Ala Gln Ala Val Glu 135 Arg Ile Arg Ala Gly Gly Pro Gln Leu His Leu Val Ile Arg Arg Pro 155 Leu Glu Thr His Pro Gly Lys Pro Arg Gly Val Gly Glu Pro Arg Lys 165 170 Gly Val Val Pro Ser Trp Pro Asp Arg Ser Pro Asp Pro Gly Gly Pro 180 185 190 Glu Val Thr Gly Ser Arg Ser Ser Ser Thr Ser Leu Val Gln His Pro 200

Pro Ser Arg Thr Thr Leu Lys Lys Thr Arg Gly Ser Pro Glu 210 215 220 222

<210> 1932
<211> 86
<212> PRT
<213> Homo sapiens

<400> 1932

<210> 1933 <211> 78 <212> PRT

<213> Homo sapiens

<210> 1934 <211> 212 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(209)
<223> Xaa = any amino acid or nothing

<400> 1934 Ser Ala Thr Pro Gln Gln Pro Ser Ala Pro Gln His Gln Gly Thr Leu 10 Asn Gln Pro Pro Val Pro Gly Met Asp Glu Ser Met Ser Tyr Gln Ala 20 25 30 Pro Pro Gln Gln Leu Pro Ser Ala Gln Pro Pro Gln Pro Ser Asn Pro 40 Pro His Gly Ala His Thr Leu Asn Ser Gly Pro Gln Pro Gly Thr Ala Pro Ala Thr Gln His Ser Gln Ala Gly Pro Ala Thr Gly Gln Ala Tyr 70 75 Gly Pro His Thr Tyr Thr Glu Pro Ala Lys Pro Lys Lys Gly Gln Gln 85 90 Leu Trp Asn Arg Met Lys Pro Ala Pro Gly Thr Glu Val Ser Ser Ser 100 105 Thr Ser Arg Ser Asp Pro Leu Leu Leu Pro Pro Arg Ala Leu Ala Pro 115 120 125 Thr Gln Arg Ala Ser Thr Val Val Leu Ala Pro Ser Pro Thr Ser Glu 135

<210> 1935 <211> 45 <212> PRT <213> Homo sapiens

<210> 1936 <211> 403 <212> PRT <213> Homo sapiens

<400> 1936 Leu Asn Ala Glu Ser Tyr Val Ser Phe Thr Thr Lys Leu Asp Ile Pro 10 Thr Ala Ala Lys Tyr Glu Tyr Gly Val Pro Leu Gln Thr Ser Asp Ser Phe Leu Arg Phe Pro Ser Ser Leu Thr Ser Ser Leu Cys Thr Asp Asn 35 , 40 Asn Pro Ala Ala Phe Leu Val Asn Gln Ala Val Lys Cys Thr Arg Lys 55 60 Ile Asn Leu Glu Gln Cys Glu Glu Ile Glu Ala Leu Ser Met Ala Phe 70 75 Tyr Ser Ser Pro Glu Ile Leu Arg Val Pro Asp Ser Arg Lys Lys Val 90 Pro Ile Thr Val Gln Ser Ile Val Ile Gln Ser Leu Asn Lys Thr Leu 100 105 110 Thr Arg Arg Glu Asp Thr Asp Val Leu Gln Pro Thr Leu Val Asn Ala 115 120 125 Gly His Phe Ser Leu Cys Val Asn Val Val Leu Glu Val Lys Tyr Ser 135 140 Leu Thr Tyr Thr Asp Ala Gly Glu Val Thr Lys Ala Asp Leu Ser Phe 155 150 Val Leu Gly Thr Val Ser Ser Val Val Val Pro Leu Gln Gln Lys Phe 165 170 Glu Ile His Phe Leu Gln Glu Asn Thr Gln Pro Val Pro Leu Ser Gly 180 185 190 Asn Pro Gly Tyr Val Val Gly Leu Pro Leu Ala Ala Gly Phe Gln Pro 200 205 His Lys Gly Ser Gly Ile Ile Gln Thr Thr Asn Arg Tyr Gly Gln Leu 215

Thr Ile Leu His Ser Thr Thr Glu Gln Asp Cys Leu Ala Leu Glu Gly 235 225 230 Val Arg Thr Pro Val Leu Phe Gly Tyr Thr Met Gln Ser Gly Cys Lys 245 250 Leu Arg Leu Thr Gly Ala Leu Pro Cys Gln Leu Val Ala Gln Lys Val 260 265 270 Lys Ser Leu Leu Trp Gly Gln Gly Phe Pro Asp Tyr Val Ala Pro Phe 285 275 280 Gly Asn Ser Gln Gly Pro Ala Asp Met Leu Asp Trp Val Pro Ile His 295 300 Phe Ile Thr Gln Ser Phe Asn Arg Lys Asp Ser Cys Gln Leu Pro Gly 305 310 310 320 Ala Leu Val Ile Glu Val Lys Trp Thr Lys Tyr Gly Ser Leu Leu Asn 325 330 335 Pro Gln Ala Lys Ile Val Asn Val Thr Ala Asn Leu Ile Ser Ser Ser 345 Phe Pro Glu Ala Asn Ser Gly Asn Glu Arg Thr Ile Leu Ile Ser Thr 355 360 365 Ala Val Thr Phe Val Asp Val Ser Ala Pro Ala Glu Ala Gly Phe Arg 375 370 380 Ala Pro Pro Ala Ile Asn Ala Arg Leu Pro Phe Asn Phe Phe Pro 390 395 Phe Val 402

<210> 1937 <211> 82 <212> PRT <213> Homo sapiens

(010) 110mo Dap10m

<400> 1937 Leu Leu Gly Arg Ala Ser Ala Cys Leu Gln Leu Gln Ser Ser Trp Asp 5 10 15 His Arg Pro Met Leu Pro Tyr Leu Ala Asn Phe Val Phe Cys Lys Asp 20 25 Arg Ser Phe Thr Trp Leu Pro Arg Leu Val Leu Asn Ser Trp Leu Gln 35 40 45 Val Ile Leu Leu Pro Trp Pro Pro Thr Gly Cys Asp Asn Lys His Glu 60 50 55 Pro Pro Cys Pro Ala Thr Lys Arg Arg His Ser Gly Ser Ile 70

<210> 1938 <211> 89 <212> PRT <213> Homo sapiens

Tyr His Thr Trp Phe Gly Glu Ser , 85 88

> <210> 1939 <211> 197 <212> PRT <213> Homo sapiens

<400> 1939 Ala Pro Val Thr Thr Ser Pro Arg Val Gly Gln Pro Trp Arg Thr Ala 1 5 10 Leu Ala Leu Arg Ser Leu Tyr Arg Ala Arg Pro Ser Leu Arg Cys Pro 25 20 Pro Val Glu Leu Pro Trp Ala Pro Arg Arg Gly His Arg Leu Ser Pro 35 40 Ala Asp Asp Glu Leu Tyr Gln Arg Thr Arg Ile Ser Leu Leu Gln Arg 55 Glu Ala Ala Gln Ala Met Tyr Ile Asp Ser Tyr Asn Ser Arg Gly Phe 70 75 Met Ile Asn Gly Asn Arg Val Leu Gly Pro Cys Ala Leu Leu Pro His 85 90 Ser Val Val Gln Trp Asn Val Gly Ser His Gln Asp Ile Thr Glu Asp 105 · 100 110 Ser Phe Ser Leu Phe Trp Leu Leu Glu Pro Arg Ile Glu Ile Val Val 115 120 125 Val Gly Thr Gly Asp Arg Thr Glu Arg Leu Gln Ser Gln Val Leu Gln 135 140 Ala Met Arg Gln Arg Gly Ile Ala Val Glu Val Gln Asp Thr Pro Asn 150 155 Ala Cys Ala Thr Phe Asn Phe Leu Cys His Glu Gly Arg Val Thr Gly 165 170 Ala Ala Leu Ile Pro Pro Pro Gly Gly Thr Ser Leu Thr Ser Leu Gly 185 180 Gln Ala Ala Gln 195 196

<210> 1940 <211> 159 <212> PRT <213> Homo sapiens

<400> 1940 Phe Phe Phe Glu Thr Glu Ser Arg Ser Val Ala Gln Ala Gly Val 10 5 Gln Trp Arg Asp Leu Gly Ser Leu Gln Ala Pro Pro Pro Gly Phe Thr _ 25 20 Pro Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Arg Pro 35 40 45 Pro Leu Arg Pro Ala Asn Phe Phe Val Phe Leu Val Glu Thr Gly Phe 55 Pro Arg Phe Ser Arg Asp Gly Leu Asp Leu Leu Thr Ser Gly Asp Pro 75 70 Pro Thr Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His Arg . 85 90 Ala Arg Pro Lys Arg Ile Gly Glu Pro Arg Arg Lys Cys Gly Asn Ala 110 105 100 Val Val Trp Pro Ser Thr Ser Leu Gly Asp His Arg Val Thr Ser Val 120 125

Pro His Gln Gly Gly Leu Pro Gly Pro Ile Arg Val Ala Pro Ser Ser 130 140
Ala Gly Gln Arg Glu Ala Ser Gln Gly Pro Pro Gly Arg 155 157

<210> 1941 <211> 111 <212> PRT <213> Homo sapiens

<400> 1941 Ile Ala Ala Arg Phe Thr Leu Ala Lys Thr Trp Asn Gln Leu Lys Arg 10 Pro Thr Met Ile Asp Ser Ile Lys Lys Thr Arg Tyr Ile Tyr Thr Met 20 25 Glu Tyr Tyr Ala Asp Thr Glu Arg Asn Glu Ile Met Ser Phe Ala Gly 40 Thr Trp Val Glu Leu Glu Ala Ile Ile Leu Ser Lys Leu Met Leu Lys 55 60 Asp Asn Trp Val Glu Asp Thr Ile Pro Gln Gly Ala Val Pro Cys Thr 75 70 Ala Thr Ala Glu Gly Met Lys Arg Leu Leu Phe Ala Leu Glu Pro Trp 85 90 Asp Ser Ser Cys Phe Pro His Pro Ser Ser Gly Val 100 105

<210> 1942 <211> 306 <212> PRT <213> Homo sapiens

<400> 1942 Arg Thr Arg Pro Leu Phe Ser Gly Arg Pro Thr Arg Pro Val Cys Thr 5 Met Ser Asp Glu Arg Arg Leu Pro Gly Ser Ala Val Gly Trp Leu Val 20 25 30 Cys Gly Gly Leu Ser Leu Leu Ala Asn Ala Trp Gly Ile Leu Ser Val 35 40 45 Gly Ala Lys Gln Lys Lys Trp Lys Pro Leu Glu Phe Leu Leu Cys Thr 60 55 Leu Ala Ala Thr His Met Leu Asn Val Ala Val Pro Ile Ala Thr Tyr Ser Val Val Gln Leu Arg Arg Gln Arg Pro Asp Phe Glu Trp Asn Glu 85 90 Gly Leu Cys Lys Val Phe Val Ser Thr Phe Tyr Thr Leu Thr Leu Ala 100 105 110 Thr Cys Phe Ser Val Thr Ser Leu Ser Tyr His Arg Met Trp Met Val 115 120 125 Cys Trp Pro Val Asn Tyr Arg Leu Ser Asn Ala Lys Lys Gln Ala Gly 135 140 His Thr Val Met Gly Ile Trp Met Gly Ser Phe Ile Leu Ser Ala Leu 155 150 Pro Ala Val Gly Trp His Asp Thr Ser Glu Arg Phe Tyr Thr His Gly 165 170 Cys Arg Phe Ile Val Ala Glu Ile Gly Leu Gly Phe Gly Val Cys Phe 185 190 Leu Leu Leu Val Gly Gly Ser Val Ala Met Gly Val Ile Cys Thr Ala 200

Ile Ala Leu Phe Gln Thr Leu Ala Val Gln Val Gly Arg Gln Ala Asp 215 220 His Arg Ala Phe Thr Val Pro Thr Ile Val Val Glu Asp Ala Gln Gly 230 235 Lys Arg Arg Ser Ser Ile Asp Gly Ser Glu Pro Ala Lys Thr Ser Leu 245 250 Gln Thr Thr Gly Leu Val Thr Thr Ile Val Phe Ile Tyr Asp Cys Leu 260 265 270 Met Gly Phe Pro Val Leu Gly Pro Phe Ser Leu Ala Asp Thr His Leu 280 285 Ser Asp Leu Pro Tyr Thr Trp Gly Asp Arg Asp Ser Gly Gly Ala Cys 295 300 Val Met 305 306

<210> 1943 <211> 65 <212> PRT <213> Homo sapiens

<210> 1944 <211> 227 <212> PRT <213> Homo sapiens

<400> 1944 Lys Met Ala Gly Gly Val Arg Pro Leu Arg Gly Leu Arg Ala Leu Cys 1 5 10 Arg Val Leu Leu Phe Leu Ser Gln Phe Cys Ile Leu Ser Gly Glu 20 25 Ser Thr Glu Ile Pro Pro Tyr Val Met Lys Cys Pro Ser Asn Gly Leu 35 40 45 Cys Ser Arg Leu Pro Ala Asp Cys Ile Asp Cys Thr Thr Asn Phe Ser 50 55 Cys Thr Tyr Gly Lys Pro Val Thr Phe Asp Cys Ala Val Lys Pro Ser 65 70 75 Val Thr Cys Val Asp Gln Asp Phe Lys Ser Gln Lys Asn Phe Ile Ile 85 90 Asn Met Thr Cys Arg Phe Cys Trp Gln Leu Pro Glu Thr Asp Tyr Glu 100 105 Cys Thr Asn Ser Thr Ser Cys Met Thr Val Ser Cys Pro Arg Gln Arg 115 120 125 Tyr Pro Ala Asn Cys Thr Val Arg Asp His Val His Cys Leu Gly Asn 130 135 140 Arg Thr Phe Pro Lys Met Leu Tyr Cys Asn Trp Thr Gly Gly Tyr Lys 150 155 Trp Val Tyr Gly Leu Trp Leu Leu Arg His His Pro Arg Trp Gly Leu 165 170

<210> 1945 <211> 92 <212> PRT <213> Homo sapiens

<210> 1946 <211> 562 <212> PRT <213> Homo sapiens

<400> 1946 His Ala Ser Asp His Leu Tyr Pro Asn Phe Leu Val Asn Glu Leu Ile Leu Lys Gln Lys Gln Arg Phe Glu Glu Lys Arg Phe Lys Leu Asp His 20 25 Ser Val Ser Ser Thr Asn Gly His Arg Trp Gln Ile Phe Gln Asp Trp 35 40 Leu Gly Thr Asp Gln Asp Asn Leu Asp Leu Ala Asn Val Asn Leu Met 55 Leu Glu Leu Leu Val Gln Lys Lys Gln Leu Glu Ala Glu Ser His 70 75 Ala Ala Gln Leu Gln Ile Leu Met Glu Phe Leu Lys Val Ala Arg Arg 85 90 Asn Lys Arg Glu Gln Leu Glu Gln Ile Gln Lys Glu Leu Ser Val Leu 105 Glu Glu Asp Ile Lys Arg Val Glu Glu Met Ser Gly Leu Tyr Ser Pro 120 125 Val Ser Glu Asp Ser Thr Val Pro Gln Phe Glu Ala Pro Ser Pro Ser 135 140 His Ser Ser Ile Ile Asp Ser Thr Glu Tyr Ser Gln Pro Pro Gly Phe 150 155 Ser Gly Ser Ser Gln Thr Lys Lys Gln Pro Trp Tyr Asn Ser Thr Leu 170 165 Ala Ser Arg Arg Lys Arg Leu Thr Ala His Phe Glu Asp Leu Glu Gln 185 [.] 180

Cys Tyr Phe Ser Thr Arg Met Ser Arg Ile Ser Asp Asp Ser Arg Thr 200 205 Ala Ser Gln Leu Asp Glu Phe Gln Glu Cys Leu Ser Lys Phe Thr Arg 210 215 220 Tyr Asn Ser Val Arg Pro Leu Ala Thr Leu Ser Tyr Ala Ser Asp Leu 230 235 Tyr Asn Gly Ser Gln Tyr Lys Ser Leu Val Phe Glu Phe Asp Arg Asp 245 250 255 Cys Asp Tyr Phe Ala Ile Ala Gly Val Thr Lys Lys Ile Lys Val Tyr 265 260 270 Glu Tyr Asp Thr Val Ile Gln Asp Ala Val Asp Ile His Tyr Pro Glu 275 280 Asn Glu Met Thr Cys Asn Ser Lys Ile Ser Cys Ile Ser Trp Ser Ser 295 300 Tyr His Lys Asn Leu Leu Ala Ser Ser Asp Tyr Glu Gly Thr Val Ile 310 315 Leu Trp Asp Gly Phe Thr Gly Gln Arg Ser Lys Val Tyr Gln Glu His 325 330 Glu Lys Arg Cys Trp Ser Val Asp Phe Asn Leu Met Asp Pro Lys Leu 345 Leu Ala Ser Gly Ser Asp Asp Ala Lys Val Lys Leu Trp Ser Thr Asn 365 360 Leu Asp Asn Ser Val Ala Ser Ile Glu Ala Lys Ala Asn Val Cys Cys 370 375 . 380 Val Lys Phe Ser Pro Ser Ser Arg Tyr His Leu Ala Phe Gly Cys Ala 3 90 395 Asp His Cys Val His Tyr Tyr Asp Leu Arg Asn Thr Lys Gln Pro Ile 410 415 Met Val Phe Lys Gly His Arg Lys Ala Val Ser Tyr Ala Lys Phe Val 420 425 430 Ser Gly Glu Glu Ile Val Ser Ala Ser Thr Asp Ser Gln Leu Lys Leu 435 440 445 Trp Asn Val Gly Lys Pro Tyr Cys Leu Arg Ser Phe Lys Gly His Ile 455 460 Asn Glu Lys Asn Phe Val Gly Leu Ala Ser Asn Gly Asp Tyr Ile Ala 470 475 Cys Gly Ser Glu Asn Asn Ser Leu Tyr Leu Tyr Tyr Lys Gly Leu Ser 485 490 Lys Thr Leu Leu Thr Phe Lys Phe Asp Thr Val Lys Ser Val Leu Asp 500 505 510 Lys Asp Arg Lys Glu Asp Asp Thr Asn Glu Phe Val Ser Ala Val Cys 515 520 525 Trp Arg Ala Leu Pro Asp Gly Glu Ser Asn Val Leu Ile Ala Ala Asn 535 Ser Gln Gly Thr Ile Lys Val Leu Glu Leu Val 550

<210> 1947 <211> 96 <212> PRT <213> Homo sapiens

<400> 1947

Ala Gly Leu Glu Leu Leu Thr Ser Trp Asp Pro Ala Ile Leu Pro Ser
65 70 75 80
Gln Ser Ala Gly Ile Ile Gly Met Ser Pro His Ala Trp Pro Pro
85 90 95

<210> 1948 <211> 128 <212> PRT <213> Homo sapiens

<400> 1948 Phe Asp Thr Glu Phe Val Asn Ile Gly Gly Asp Phe Asp Ala Ala Ala 1 5 10 15 Gly Val Phe Arg Cys Arg Leu Pro Gly Ala Tyr Phe Phe Ser Phe Thr 20 25 Leu Gly Lys Leu Pro Arg Lys Thr Leu Ser Val Lys Leu Met Lys Asn 35 40 Arg Asp Glu Val Gln Ala Met Ile Tyr Asp Asp Gly Ser Ser Arg Arg 55 Arg Glu Met Gln Ser Gln Ser Val Met Leu Ala Leu Arg Arg Gly Asp 70 75 Ala Val Trp Leu Leu Ser His Asp His Asp Gly Tyr Gly Ala Tyr Ser 85 90 Asn His Gly Lys Tyr Ile Thr Phe Ser Gly Phe Leu Val Tyr Pro Asp 100 105 110 Leu Ala Pro Ala Ala Pro Pro Gly Leu Gly Ala Ser Glu Leu Leu

<210> 1949 <211> 138 <212> PRT <213> Homo sapiens

<400> 1949 Met Gly Gln Pro Ala Pro Tyr Ala Glu Gly Pro Ile Gln Gly Gly Asp 1 5 10 15 Ala Gly Glu Leu Cys Lys Cys Asp Phe Leu Val Phe Thr Ser Pro Asn 25 Pro Glu Ala Val Cys Glu Ala Gly Thr Pro Ala Met Phe Gln Thr Ala 35 40 45 Trp Arg Gln Met Glu Ser Cys Ser Ile Ala Gln Ala Gly Val Gln Trp 55 Arg Asp Pro Gly Ser Leu His Pro Pro Pro Leu Gly Phe Lys Arg Phe 70 75 Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Lys His Ala Pro Pro 90 85 His Pro Ala Asn Phe Cys Ile Phe Ser Arg Asp Gln Val Ser Pro Cys 100 105 110 Trp Pro Gly Trp Ser Arg Ser Leu Asp Leu Val Ile Pro Pro Pro Trp 120 Leu Pro Lys Val Leu Gly Leu Gln Ala 135 137

<210> 1950 <211> 148 <212> PRT

## <213> Homo sapiens

<400> 1950 Phe Phe Phe Glu Thr Glu Ser Cys Tyr Val Ala Gln Ala Gly Val Gln 10 Trp Cys Asp Leu Cys Ser Leu Gln Ala Pro Pro Pro Gly Ser Ser Asp 20 25 Pro Pro Ala Ser Ala Ser Arg Val Ala Gly Thr Thr Gly Ala Arg His 35 40 His Thr Gln Leu Ile Phe Val Phe Leu Val Glu Thr Gly Phe His Met 50 55 60 Leu Ala Arg Asp Gly Leu Lys Leu Leu Thr Ser Ser Asp Pro Pro Ala 70 75 Ser Ala Ser Gln Ser Ser Trp Asp Tyr Arg Arg Glu Pro Pro Arg Leu 85 90 95 Ala Asn Phe Phe Val Phe Leu Val Glu Thr Gly Ser Arg Tyr Val Ala 100 105 Gln Ala Gly Val Gln Trp Leu Phe Thr Gly Ala Ile Pro Leu Leu Ile 115 120 125 Ser Thr Gly Val Leu Thr Cys Ser Val Ser Asp Leu Gly Arg Phe Thr 135 140 Pro Pro 145 146

<210> 1951 <211> 353 <212> PRT <213> Homo sapiens

<400> 1951

His Glu Val Gln Glu Ser Ile His Phe Leu Glu Ser Glu Phe Ser Arg Gly Ile Ser Asp Asn Tyr Thr Leu Ala Leu Ile Thr Tyr Ala Leu Ser 20 25 Ser Val Gly Ser Pro Lys Ala Lys Glu Ala Leu Asn Met Leu Thr Trp 40 45 Arg Ala Glu Gln Glu Gly Gly Met Gln Phe Trp Val Ser Ser Glu Ser 55 Lys Leu Ser Asp Ser Trp Gln Pro Arg Ser Leu Asp Ile Glu Val Ala 65 70 Ala Tyr Ala Leu Leu Ser His Phe Leu Gln Phe Gln Thr Ser Glu Gly 85 90 Ile Pro Ile Met Arg Trp Leu Ser Arg Gln Arg Asn Ser Leu Gly Gly 105 Phe Ala Ser Thr Gln Asp Thr Thr Val Ala Leu Lys Ala Leu Ser Glu 115 120 125 Phe Ala Ala Leu Met Asn Thr Glu Arg Thr Asn Ile Gln Val Thr Val 135 140 Thr Gly Pro Ser Ser Pro Ser Pro Val Lys Phe Leu Ile Asp Thr His 150 155 Asn Arg Leu Leu Gln Thr Ala Glu Leu Ala Asp Gly Thr Ala Asn 165 170 175 Gly Ser Val Ser Ile Ser Ala Asn Gly Phe Gly Phe Ala Ile Cys Gln 180 185 Leu Asn Val Val Tyr Asn Val Lys Ala Ser Gly Ser Ser Arg Arg 200 205 Arg Ser Ile Gln Asn Gln Glu Ala Phe Asp Leu Asp Val Ala Val Lys 215 220 Glu Asn Lys Asp Asp Leu Asn His Val Asp Leu Asn Val Cys Thr Ser 230 235

Phe Ser Gly Pro Gly Arg Ser Gly Met Ala Leu Met Glu Val Asn Leu 250 245 Leu Ser Gly Phe Met Val Pro Ser Glu Ala Ile Ser Leu Ser Glu Thr 265 260 270 Val Lys Lys Val Glu Tyr Asp His Gly Lys Leu Asn Leu Tyr Leu Asp 280 285 Ser Val Asn Glu Thr Gln Phe Cys Val Asn Ile Pro Ala Val Arg Asn 290 · 295 300 Phe Lys Val Ser Asn Thr Gln Asp Ala Ser Val Ser Ile Val Asp Tyr 310 315 Tyr Glu Pro Arg Arg Gln Ala Val Arg Ser Tyr Asn Ser Glu Val Lys 330 Leu Ser Ser Cys Asp Leu Cys Ser Asp Val Gln Arg Leu Pro Ser Leu 345

<210> 1952 <211> 562 <212> PRT <213> Homo sapiens

<400> 1952

Met Arg Ala Pro Gly Arg Pro Ala Leu Arg Pro Leu Pro Leu Pro Pro 10 Leu Leu Leu Leu Leu Ser Ser Pro Trp Gly Arg Ala Val Pro Cys Val Ser Gly Gly Leu Pro Lys Pro Ala Asn Ile Thr Phe Leu Ser Ile 40 Asn Met Lys Asn Val Leu Gln Trp Thr Pro Pro Glu Gly Leu Gln Gly 55 -Val Lys Val Thr Tyr Thr Val Gln Tyr Phe Ile Tyr Gly Gln Lys Lys
65 70 75 80 70 Trp Leu Asn Lys Ser Glu Cys Arg Asn Ile Asn Arg Thr Tyr Cys Asp 85 90 95 Leu Ser Ala Glu Thr Ser Asp Tyr Glu His Gln Tyr Tyr Ala Lys Val 105 Lys Ala Ile Trp Gly Thr Lys Cys Ser Lys Trp Ala Glu Ser Gly Arg 115 120 125 Phe Tyr Pro Phe Leu Glu Thr Gln Ile Gly Pro Pro Glu Val Ala Leu 135 140 Thr Thr Asp Glu Lys Ser Ile Ser Val Val Leu Thr Ala Pro Glu Lys 150 155 Trp Lys Arg Asn Pro Glu Asp Leu Pro Val Ser Met Gln Gln Ile Tyr 165 170 175 Ser Asn Leu Lys Tyr Asn Val Ser Val Leu Asn Thr Lys Ser Asn Arg 180 185 Thr Trp Ser Gln Cys Val Thr Asn His Thr Leu Val Leu Thr Trp Leu 200 Glu Pro Asn Thr Leu Tyr Cys Val His Val Glu Ser Phe Val Pro Gly 215 220 Pro Pro Arg Arg Ala Gln Pro Ser Glu Lys Gln Cys Ala Arg Thr Leu 230 235 Lys Asp Gln Ser Ser Glu Phe Lys Ala Lys Ile Ile Phe Trp Tyr Val 245 250 Leu Pro Ile Ser Ile Thr Val Phe Leu Phe Ser Val Met Gly Tyr Ser 270 260 265 Ile Tyr Arg Tyr Ile His Val Gly Lys Glu Lys His Pro Ala Asn Leu 275 280 Ile Leu Ile Tyr Gly Asn Glu Phe Asp Lys Arg Phe Phe Val Pro Ala

Glu Lys Ile Val Ile Asn Phe Ile Thr Leu Asn Ile Ser Asp Asp Ser 310 315 Lys Ile Ser His Gln Asp Met Ser Leu Leu Gly Lys Ser Ser Asp Val 330 325 Ser Ser Leu Asn Asp Pro Gln Pro Ser Gly Asn Leu Arg Pro Pro Gln 345 350 Glu Glu Glu Glu Val Lys His Leu Gly Tyr Ala Ser His Leu Met Glu 360 Ile Phe Cys Asp Ser Glu Glu Asn Thr Glu Gly Thr Ser Phe Thr Gln 380 375 Gln Glu Ser Leu Ser Arg Thr Ile Pro Pro Asp Lys Thr Val Ile Glu 395 390 Tyr Glu Tyr Asp Val Arg Thr Thr Asp Ile Cys Ala Gly Pro Glu Glu 410 415 Gln Glu Leu Ser Leu Gln Glu Glu Val Ser Thr Gln Gly Thr Leu Leu 425 420 Glu Ser Gln Ala Ala Leu Ala Val Leu Gly Pro Gln Thr Leu Gln Tyr 435 440 445 Ser Tyr Thr Pro Gln Leu Gln Asp Leu Asp Pro Leu Ala Gln Glu His 455 450 Thr Asp Ser Glu Glu Gly Pro Glu Glu Glu Pro Ser Thr Thr Leu Val 470 475 Asp Trp Asp Pro Gln Thr Gly Arg Leu Cys Ile Pro Ser Leu Ser Ser 485 490 495 485 490 Phe Asp Gln Asp Ser Glu Gly Cys Glu Pro Ser Glu Gly Asp Gly Leu 500 505 Gly Glu Glu Gly Leu Leu Ser Arg Leu Tyr Glu Glu Pro Ala Pro Asp 525 515 520 Arg Pro Pro Gly Glu Asn Glu Thr Tyr Leu Met Gln Phe Met Glu Glu 535 540 Trp Gly Leu Tyr Val Gln Met Glu Asn 550

<210> 1953 <211> 202 <212> PRT <213> Homo sapiens

<400> 1953

Tyr Ser Ala Val Glu Phe Val Glu Gln Ala Ser Gly Ile Ser Asp Trp 5 10 Trp Asn Pro Ala Leu Arg Lys Arg Met Leu Ser Asp Ser Gly Leu Gly . 20 25 Met Ile Ala Pro Tyr Tyr Glu Asp Ser Asp Leu Lys Asp Leu Ser His 45 35 40 Ser Arg Val Leu Gln Ser Pro Val Ser Ser Glu Asp His Ala Ile Leu 55 60 Gln Ala Val Ile Ala Gly Asp Leu Met Lys Leu Ile Glu Ser Tyr Lys 70 Asn Gly Gly Ser Leu Leu Ile Gln Gly Pro Asp His Cys Ser Leu Leu 85 90 His Tyr Ala Ala Glu Thr Gly Asn Gly Glu Ile Val Lys Tyr Ile Leu 105 100 110 Asp His Gly Pro Ser Glu Leu Leu Asp Met Ala Asp Ser Glu Thr Gly 120 Glu Thr Ala Leu His Lys Ala Ala Cys Gln Arg Asn Arg Ala Val Cys 140 135 Gln Leu Leu Val Asp Ala Gly Ala Ser Leu Arg Lys Thr Asp Ser Lys 150 155 Gly Lys Thr Pro Gln Glu Arg Ala Gln Gln Ala Gly Asp Pro Asp Leu 165 170

Ala Ala Tyr Thr Ile Glu Ser Arg Gln Asn Tyr Lys Val Ile Gly His
180 185 190
Glu Asp Leu Glu Thr Ala Val
195 199

<210> 1954 <211> 312 <212> PRT <213> Homo sapiens

<400> 1954 Gln Asp Asn Lys Val Gln Asn Gly Ser Leu His Gln Lys Asp Thr Val 5 10 His Asp Asn Asp Phe Glu Pro Tyr Leu Thr Gly Gln Ala Asn Gln Ser 25 Asn Ser Tyr Pro Ser Met Ser Asp Pro Tyr Leu Ser Ser Tyr Tyr Pro 35 40 Pro Ser Ile Gly Phe Pro Tyr Ser Leu Asn Glu Ala Pro Trp Ser Thr . 60 55 Ala Gly Asp Pro Pro Ile Pro Tyr Leu Thr Thr Tyr Gly Gln Leu Ser 70 Asn Gly Asp His His Phe Met His Asp Ala Val Phe Gly Gln Pro Gly 90 85 Gly Leu Gly Asn Asn Ile Tyr Gln His Arg Phe Asn Phe Pro Glu 105 110 100 Asn Pro Ala Phe Ser Ala Trp Gly Thr Ser Gly Ser Gln Gly Gln Gln 120 125 Thr Gln Ser Ser Ala Tyr Gly Ser Ser Tyr Thr Tyr Pro Pro Ser Ser 135 140 Leu Gly Gly Thr Val Val Asp Gly Gln Pro Gly Phe His Ser Asp Thr 150 155 Leu Ser Lys Ala Pro Gly Met Asn Ser Leu Glu Gln Gly Met Val Gly 170 175 165 Leu Lys Ile Gly Asp Val Ser Ser Ser Ala Val Lys Thr Val Gly Ser 185 190 180 Val Val Ser Ser Val Ala Leu Thr Gly Val Leu Ser Gly Asn Gly Gly 200 205 Thr Asn Val Asn Met Pro Val Ser Lys Pro Thr Ser Trp Ala Ala Ile 220 210 215 Ala Ser Lys Pro Ala Lys Pro Gln Pro Lys Met Lys Thr Lys Ser Gly 235 230 Pro Val Met Gly Gly Leu Pro Pro Pro Pro Ile Lys His Asn Met 245 250 Asp Ile Gly Thr Trp Asp Asn Lys Gly Pro Val Pro Lys Ala Pro Val . 260 265 270 Pro Gln Gln Ala Pro Ser Pro Gln Ala Ala Pro Gln Pro Gln Gln Val 275 280 285 Ala Gln Pro Leu Pro Ala Gln Pro Pro Ala Leu Ala Gln Pro Gln Tyr 295 Gln Ser Pro Gln Gln Pro Pro Gln 310 312

<210> 1955 <211> 769 <212> PRT <213> Homo sapiens

<400> 1955

Ile Leu Leu Gln Glu Lys Arg Asn Cys Leu Leu Met Gln Leu Glu Glu Ala Thr Arg Leu Thr Ser Tyr Leu Gln Ser Gln Leu Lys Ser Leu Cys Ala Ser Thr Leu Thr Val Ser Ser Gly Ser Ser Arg Gly Ser Leu Ala Ser Ser Arg Gly Ser Leu Ala Ser Ser Arg Gly Ser Leu Ser Ser Val Ser Phe Thr Asp Ile Tyr Gly Leu Pro Gln Tyr Glu Lys Pro Asp Ala Glu Gly Ser Gln Leu Leu Arg Phe Asp Leu Ile Pro Phe Asp Ser Leu Gly Arg Asp Ala Pro Phe Ser Glu Pro Pro Gly Pro Ser Gly Phe His 100 105 110 Lys Gln Arg Arg Ser Leu Asp Thr Pro Gln Ser Leu Ala Ser Leu Ser Ser Arg Ser Ser Leu Ser Ser Leu Ser Pro Pro Ser Ser Pro Leu Asp Thr Pro Phe Leu Pro Ala Ser Arg Asp Ser Pro Leu Ala Gln Leu Ala Asp Ser Cys Glu Gly Pro Gly Leu Gly Ala Leu Asp Arg Leu Arg Ala His Ala Ser Ala Met Gly Asp Glu Asp Leu Pro Gly Met Ala Ala Leu Gln Pro His Gly Val Pro Gly Asp Gly Glu Gly Pro His Glu Arg Gly Pro Pro Pro Ala Ser Ala Pro Val Gly Gly Thr Val Thr Leu Arg Glu Asp Ser Ala Lys Arg Leu Glu Arg Arg Ala Arg Arg Ile Ser Ala Cys Leu Ser Asp Tyr Ser Leu Ala Ser Asp Ser Gly Val Phe Glu Pro Leu Thr Lys Arg Asn Glu Asp Ala Glu Glu Pro Ala Tyr Gly Asp Thr Ala Ser Asn Gly Asp Pro Gln Ile His Val Gly Leu Leu Arg Asp Ser Gly Ser Glu Cys Leu Leu Val His Val Leu Gln Leu Lys Asn Pro Ala Gly Leu Ala Val Lys Glu Asp Cys Lys Val His Ile Arg Val Tyr Leu Pro Pro Leu Asp Ser Gly Thr Pro Asn Thr Tyr Cys Ser Lys Ala Leu Glu Phe Gln Val Pro Leu Val Phe Asn Glu Val Phe Arg Ile Pro Val His Ser Ser Ala Leu Thr Leu Lys Ser Leu Gln Leu Tyr Val Cys Ser Val Thr Pro Gln Leu Gln Glu Glu Leu Leu Gly Ile Ala Gln Ile Asn Leu Ala Asp Tyr Asp Ser Leu Ser Glu Met Gln Leu Arg Trp His Ser Val Gln Val Phe Thr Ser Leu Asn His Gln Gly Arg Gly Arg Leu Gly Val Gln Glu Arg Ala Pro Pro Gly Thr Leu His Thr Pro Ser Pro Ser Pro 420 -Ala Ser Thr Asp Ala Val Thr Val Leu Leu Ala Arg Thr Thr Ala Gln Leu Gln Ala Val Glu Arg Glu Leu Ala Glu Glu Arg Ala Lys Leu Glu Tyr Thr Glu Glu Glu Val Leu Glu Met Glu Arg Lys Glu Glu Gln Ala Glu Ala Ile Ser Glu Arg Ser Trp Gln Ala Asp Ser Val Asp Ser Gly Cys Ser Asn Cys Thr Gln Thr Ser Pro Pro Tyr Pro Glu Pro Cys Cys 

Met Gly Ile Asp Ser Ile Leu Gly His Pro Phe Ala Ala Gln Ala Gly Pro Tyr Ser Pro Glu Lys Phe Gln Pro Ser Pro Leu Lys Val Asp Lys Glu Thr Asn Thr Glu Asp Leu Phe Leu Glu Glu Ala Ala Ser Leu Val Lys Glu Arg Pro Ser Arg Arg Ala Arg Gly Ser Pro Phe Val Arg Ser Gly Thr Ile Val Arg Ser Gln Thr Phe Ser Pro Gly Ala Arg Ser Gln Tyr Val Cys Arg Leu Tyr Arg Ser Asp Ser Asp Ser Ser Thr Leu Pro Arg Lys Ser Pro Phe Val Arg Asn Thr Leu Glu Arg Arg Thr Leu Arg Tyr Lys Gln Ser Cys Arg Ser Ser Leu Ala Glu Leu Met Ala Arg Thr Ser Leu Asp Leu Glu Leu Asp Leu Gln Ala Ser Arg Thr Arg Gln Arg Gln Leu Asn Glu Glu Leu Cys Ala Leu Arg Glu Leu Arg Gln Arg Leu Glu Asp Ala Gln Leu Arg Gly Gln Thr Asp Leu Pro Pro Trp Val Leu Arg Asp Glu Arg Leu Arg Gly Leu Leu Arg Glu Ala Glu Arg Gln Thr Arg Gln Thr Lys Leu Asp Tyr Arg His Glu Gln Ala Ala Glu Lys Met Leu Lys Lys Ala Ser Lys Glu Ile Tyr Gln Leu Arg Gly Gln Ser His Lys Glu Pro Ile Gln Val Gln Thr Phe Arg Glu Lys Ile Ala Phe Phe Thr Arg Pro Arg Ile Asn Ile Pro Pro Leu Pro Ala Asp Asp Val 

<210> 1956 <211> 885 <212> PRT <213> Homo sapiens

<400> 1956 Pro Gly Ser Gly Pro Gly Pro Ala Pro Phe Leu Ala Pro Val Ala Ala Pro Val Gly Gly Ile Ser Phe His Leu Gln Ile Gly Leu Ser Arg Glu Pro Val Leu Leu Gln Asp Ser Ser Gly Asp Tyr Ser Leu Ala His Val Arg Glu Met Ala Cys Ser Ile Val Asp Gln Lys Phe Pro Glu Cys 50 55 Gly Phe Tyr Gly Met Tyr Asp Lys Ile Leu Leu Phe Arg His Asp Pro Thr Ser Glu Asn Ile Leu Gln Leu Val Lys Ala Ala Ser Asp Ile Gln Glu Gly Asp Leu Ile Glu Val Val Leu Ser Ala Ser Ala Thr Phe Glu Asp Phe Gln Ile Arg Pro His Ala Leu Phe Val His Ser Tyr Arg Ala Pro Ala Phe Cys Asp His Cys Gly Glu Met Leu Trp Gly Leu Val Arg Gln Gly Leu Lys Cys Glu Gly Cys Gly Leu Asn Tyr His Lys Arg Cys Ala Phe Lys Ile Pro Asn Asn Cys Ser Gly Val Arg Arg Arg Leu 

Ser Asn Val Ser Leu Thr Gly Val Ser Thr Ile Arg Thr Ser Ser Ala Glu Leu Ser Thr Ser Ala Pro Asp Glu Pro Leu Leu Gln Lys Ser Pro Ser Glu Ser Phe Ile Gly Arg Glu Lys Arg Ser Asn Ser Gln Ser Tyr . 220 Ile Gly Arg Pro Ile His Leu Asp Lys Ile Leu Met Ser Lys Val Lys Val Pro His Thr Phe Val Ile His Ser Tyr Thr Arg Pro Thr Val Cys Gln Tyr Cys Lys Lys Leu Leu Lys Gly Leu Phe Arg Gln Gly Leu Gln Cys Lys Asp Cys Arg Phe Asn Cys His Lys Arg Cys Ala Pro Lys Val 275 280 Pro Asn Asn Cys Leu Gly Glu Val Thr Ile Asn Gly Asp Leu Leu Ser Pro Gly Ala Glu Ser Asp Val Val Met Glu Glu Gly Ser Asp Asp Asn Asp Ser Glu Arg Asn Ser Gly Leu Met Asp Asp Met Glu Glu Ala Met Val Gln Asp Ala Glu Met Ala Met Ala Glu Cys Gln Asn Asp Ser Gly 340 345 Glu Met Gln Asp Pro Asp Pro Asp His Glu Asp Ala Asn Arg Thr Ile Ser Pro Ser Thr Ser Asn Asn Ile Pro Leu Met Arg Val Val Gln Ser Val Lys His Thr Lys Arg Lys Ser Ser Thr Val Met Lys Glu Gly Trp Met Val His Tyr Thr Ser Lys Asp Thr Leu Arg Lys Arg His Tyr Trp Arg Leu Asp Ser Lys Cys Ile Thr Leu Phe Gln Asn Asp Thr Gly Ser Arg Tyr Tyr Lys Glu Ile Pro Leu Ser Glu Ile Leu Ser Leu Glu Pro Val Lys Thr Ser Ala Leu Ile Pro Asn Gly Ala Asn Pro His Cys Phe Glu Ile Thr Thr Ala Asn Val Val Tyr Tyr Val Gly Glu Asn Val Val Asn Pro Ser Ser Pro Ser Pro Asn Asn Ser Val Leu Thr Ser Gly Val Gly Ala Asp Val Ala Arg Met Trp Glu Ile Ala Ile Gln His Ala Leu 500 505 Met Pro Val Ile Pro Lys Gly Ser Ser Val Gly Thr Gly Thr Asn Leu His Arg Asp Ile Ser Val Ser Ile Ser Val Ser Asn Cys Gln Ile Gln Glu Asn Val Asp Ile Ser Thr Val Tyr Gln Ile Phe Pro Asp Glu Val Leu Gly Ser Gly Gln Phe Gly Ile Val Tyr Gly Gly Lys His Arg Lys Thr Gly Arg Asp Val Ala Ile Lys Ile Ile Asp Lys Leu Arg Phe Pro 580 585 590 · 580 Thr Lys Gln Glu Ser Gln Leu Arg Asn Glu Val Ala Ile Leu Gln Asn Leu His His Pro Gly Val Val Asn Leu Glu Cys Met Phe Glu Thr Pro Glu Arg Val Phe Val Val Met Glu Lys Leu His Gly Asp Met Leu Glu Met Ile Leu Ser Ser Glu Lys Gly Arg Leu Pro Glu His Ile Thr Lys Phe Leu Ile Thr Gln Ile Leu Val Ala Leu Arg His Leu His Phe Lys Asn Ile Val His Cys Asp Leu Lys Pro Glu Asn Val Leu Leu Ala Ser 

Ala Asp Pro Phe Pro Gln Val Lys Leu Cys Asp Phe Gly Phe Ala Arg 695 Ile Ile Gly Glu Lys Ser Phe Arg Arg Ser Val Val Gly Thr Pro Ala 710 715 Tyr Leu Ala Pro Glu Val Leu Arg Asn Lys Gly Tyr Asn Arg Ser Leu 730 725 Asp Met Trp Ser Val Gly Val Ile Ile Tyr Val Ser Leu Ser Gly Thr 745 740 Phe Pro Phe Asn Glu Asp Glu Asp Ile His Asp Gln Ile Gln Asn Ala 760 Ala Phe Met Tyr Pro Pro Asn Pro Trp Lys Glu Ile Ser His Glu Ala 775 Ile Asp Leu Ile Asn Asn Leu Leu Gln Val Lys Met Arg Lys Arg Tyr 790 795 Ser Val Asp Lys Thr Leu Ser His Pro Trp Leu Gln Asp Tyr Gln Thr 810 805 Trp Leu Asp Leu Arg Glu Leu Glu Cys Lys Ile Gly Glu Arg Tyr Ile 820 825 Thr His Glu Ser Asp Asp Leu Arg Trp Glu Lys Tyr Ala Gly Glu Gln 840 835 845 Gly Leu Gln Tyr Pro Thr His Leu Ile Asn Pro Ser Ala Ser His Ser 855 860 Asp Thr Pro Glu Thr Glu Glu Thr Glu Met Lys Ala Leu Gly Glu Arg 870 Val Ser Ile Leu 884

<210> 1957 <211> 1502 <212> PRT <213> Homo sapiens

<400> 1957 Ser Arg Pro Trp Trp Leu Arg Ala Ser Glu Arg Pro Ser Ala Pro Ser 10 Ala Met Ala Lys Arg Ser Arg Gly Pro Gly Arg Arg Cys Leu Leu Ala 25 20 Leu Val Leu Phe Cys Ala Trp Gly Thr Leu Ala Val Val Ala Gln Lys 40 Pro Gly Ala Gly Cys Pro Ser Arg Cys Leu Cys Phe Arg Thr Thr Val Arg Cys Met His Leu Leu Leu Glu Ala Val Pro Ala Val Ala Pro Gln 70 75 Thr Ser Ile Leu Asp Leu Arg Phe Asn Arg Ile Arg Glu Ile Gln Pro 90 85 Gly Ala Phe Arg Arg Leu Arg Asn Leu Asn Thr Leu Leu Leu Asn Asn 105 Asn Gln Ile Lys Arg Ile Pro Ser Gly Ala Phe Glu Asp Leu Glu Asn 120 125 Leu Lys Tyr Leu Tyr Leu Tyr Lys Asn Glu Ile Gln Ser Ile Asp Arg 140 135 Gln Ala Phe Lys Gly Leu Ala Ser Leu Glu Gln Leu Tyr Leu His Phe 150 155 Asn Gln Ile Glu Thr Leu Asp Pro Asp Ser Phe Gln His Leu Pro Lys 170 165 Leu Glu Arg Leu Phe Leu His Asn Asn Arg Ile Thr His Leu Val Pro 180 185 Gly Thr Phe Asn His Leu Glu Ser Met Lys Arg Leu Arg Leu Asp Ser 200 205 Asn Thr Leu His Cys Asp Cys Glu Ile Leu Trp Leu Ala Asp Leu Leu

Lys Thr Tyr Ala Glu Ser Gly Asn Ala Gln Ala Ala Ile Cys Glu Tyr Pro Arg Arg Ile Gln Gly Arg Ser Val Ala Thr Ile Thr Pro Glu Glu Leu Asn Cys Glu Arg Pro Arg Ile Thr Ser Glu Pro Gln Asp Ala Asp Val Thr Ser Gly Asn Thr Val Tyr Phe Thr Cys Arg Ala Glu Gly Asn Pro Lys Pro Glu Ile Ile Trp Leu Arg Asn Asn Asn Glu Leu Ser Met Lys Thr Asp Ser Arg Leu Asn Leu Leu Asp Asp Gly Thr Leu Met Ile Gln Asn Thr Gln Glu Thr Asp Gln Gly Ile Tyr Gln Cys Met Ala 325 330 Lys Asn Val Ala Gly Glu Val Lys Thr Gln Glu Val Thr Leu Arg Tyr Phe Gly Ser Pro Ala Arg Pro Thr Phe Val Ile Gln Pro Gln Asn Thr Glu Val Leu Val Gly Glu Ser Val Thr Leu Glu Cys Ser Ala Thr Gly His Pro Pro Pro Arg Ile Ser Trp Thr Arg Gly Asp Arg Thr Pro Leu Pro Val Asp Pro Arg Val Asn Ile Thr Pro Ser Gly Gly Leu Tyr Ile Gln Asn Val Val Gln Gly Asp Ser Gly Glu Tyr Ala Cys Ser Ala Thr · 425 Asn Asn Ile Asp Ser Val His Ala Thr Ala Phe Ile Ile Val Gln Ala Leu Pro Gln Phe Thr Val Thr Pro Gln Asp Arg Val Val Ile Glu Gly Gln Thr Val Asp Phe Gln Cys Glu Ala Lys Gly Asn Pro Pro Pro Val Ile Ala Trp Thr Lys Gly Gly Ser Gln Leu Ser Val Asp Arg Arg His Leu Val Leu Ser Ser Gly Thr Leu Arg Ile Ser Gly Val Ala Leu His Asp Gln Gly Gln Tyr Glu Cys Gln Ala Val Asn Ile Ile Gly Ser Gln Lys Val Val Ala His Leu Thr Val Gln Pro Arg Val Thr Pro Val Phe Ala Ser Ile Pro Ser Asp Thr Thr Val Glu Val Gly Ala Asn Val Gln Leu Pro Cys Ser Ser Gln Gly Glu Pro Glu Pro Ala Ile Thr Trp Asn Lys Asp Gly Val Gln Val Thr Glu Ser Gly Lys Phe His Ile Ser Pro Glu Gly Phe Leu Thr Ile Asn Asp Val Gly Pro Ala Asp Ala Gly Arg Tyr Glu Cys Val Ala Arg Asn Thr Ile Gly Ser Ala Ser Val Ser Met Val Leu Ser Val Asn Val Pro Asp Val Ser Arg Asn Gly Asp Pro Phe Val Ala Thr Ser Ile Val Glu Ala Ile Ala Thr Val Asp Arg Ala Ile Asn Ser Thr Arg Thr His Leu Phe Asp Ser Arg Pro Arg Ser Pro Asn Asp Leu Leu Ala Leu Phe Arg Tyr Pro Arg Asp Pro Tyr Thr Val Glu Gln Ala Arg Ala Gly Glu Ile Phe Glu Arg Thr Leu Gln Leu Ile Gln Glu His Val Gln His Gly Leu Met Val Asp Leu Asn Gly Thr Ser Tyr His Tyr Asn Asp Leu Val Ser Pro Gln Tyr Leu Asn Leu Ile Ala Asn 

Leu Ser Gly Cys Thr Ala His Arg Arg Val Asn Asn Cys Ser Asp Met 740 745 Cys Phe His Gln Lys Tyr Arg Thr His Asp Gly Thr Cys Asn Asn Leu 760 765 Gln His Pro Met Trp Gly Ala Ser Leu Thr Ala Phe Glu Arg Leu Leu 775 780 . Lys Ser Val Tyr Glu Asn Gly Phe Asn Thr Pro Arg Gly Ile Asn Pro 795 790 His Arg Leu Tyr Asn Gly His Ala Leu Pro Met Pro Arg Leu Val Ser 805 810 Thr Thr Leu Ile Gly Thr Glu Thr Val Thr Pro Asp Glu Gln Phe Thr 825 820 His Met Leu Met Gln Trp Gly Gln Phe Leu Asp His Asp Leu Asp Ser 840 845 835 Thr Val Val Ala Leu Ser Gln Ala Arg Phe Ser Asp, Gly Gln His Cys 855 860 Ser Asn Val Cys Ser Asn Asp Pro Pro Cys Phe Ser Val Met Ile Pro 870 875 Pro Asn Asp Ser Arg Ala Arg Ser Gly Ala Arg Cys Met Phe Phe Val 890 885 Arg Ser Ser Pro Val Cys Gly Ser Gly Met Thr Ser Leu Leu Met Asn 905 910 Ser Val Tyr Pro Arg Glu Gln Ile Asn Gln Leu Thr Ser Tyr Ile Asp 920 925 915 Ala Ser Asn Val Tyr Gly Ser Thr Glu His Glu Ala Arg Ser Ile Arg 930 935 940 Asp Leu Ala Ser His Arg Gly Leu Leu Arg Gln Gly Ile Val Gln Arg 955 950 Ser Gly Lys Pro Leu Leu Pro Phe Ala Thr Gly Pro Pro Thr Glu Cys 965 970 Met Arg Asp Glu Asn Glu Ser Pro Ile Pro Cys Phe Leu Ala Gly Asp 985 990 980 His Arg Ala Asn Glu Gln Leu Gly Leu Thr Ser Met His Thr Leu Trp 995 1000 1005 Phe Arg Glu His Asn Arg Ile Ala Thr Glu Leu Leu Lys Leu Asn Pro 1010 1015 1020 His Trp Asp Gly Asp Thr Ile Tyr Tyr Glu Thr Arg Lys Ile Val Gly 1030 1035 Ala Glu Ile Gln His Ile Thr Tyr Gln His Trp Leu Pro Lys Ile Leu 1045 1050 1055 Gly Glu Val Gly Met Arg Thr Leu Gly Glu Tyr His Gly Tyr Asp Pro 1060 1065 1070 Gly Ile Asn Ala Gly Ile Phe Asn Ala Phe Ala Thr Ala Ala Phe Arg . 1080 1085 1075 Phe Gly His Thr Leu Val Asn Pro Leu Leu Pro Gly Leu Asp Glu 1090 1095 1100 Asn Phe Gln Pro Ile Ala Gln Asp His Leu Pro Leu His Lys Ala Phe 1105 1110 1115 1120 Phe Ser Pro Phe Arg Ile Val Asn Glu Gly Gly Ile Asp Pro Leu Leu 1125 1130 Arg Gly Leu Phe Gly Val Ala Gly Lys Met Arg Val Pro Ser Gln Leu 1145 1150 1140 Leu Asn Thr Glu Leu Thr Glu Arg Leu Phe Ser Met Ala His Thr Val 1160 1165 Ala Leu Asp Leu Ala Ala Ile Asn Ile Gln Arg Gly Arg Asp His Gly 1180 1175 Ile Pro Pro Tyr His Asp Tyr Arg Val Tyr Cys Asn Leu Ser Ala Ala 1190 1195 His Thr Phe Glu Asp Leu Lys Asn Glu Ile Lys Asn Pro Glu Ile Arg 1215 1205 1210 Glu Lys Leu Lys Arg Leu Tyr Gly Ser Thr Leu Asn Ile Asp Leu Phe 1220 1225 Pro Ala Leu Val Val Glu Asp Leu Val Pro Gly Ser Arg Leu Gly Pro 1240

Thr Leu Met Cys Leu Leu Ser Thr Gln Phe Lys Arg Leu Arg Asp Gly 1250 1255 1260 Asp Arg Leu Trp Tyr Glu Asn Pro Gly Val Phe Ser Pro Ala Gln Leu 1270 1275 1280 1265 Thr Gln Ile Lys Gln Thr Ser Leu Ala Arg Ile Leu Cys Asp Asn Ala 1285 1290 1295 Asp Asn Ile Thr Arg Val Gln Ser Asp Val Phe Arg Val Ala Glu Phe 1300 1305 1310 Pro His Gly Tyr Gly Ser Cys Asp Glu Ile Pro Arg Val Asp Leu Arg 1315 1320 1325 Val Trp Gln Asp Cys Cys Glu Asp Cys Arg Thr Arg Gly Gln Phe Asn 1330 1335 1340 Ala Phe Ser Tyr His Phe Arg Gly Arg Arg Ser Leu Glu Phe Ser Tyr 1350 1355 1360 Gln Glu Asp Lys Pro Thr Lys Lys Thr Arg Pro Arg Lys Ile Pro Ser 1365 1370 1375 Val Gly Arg Gln Gly Glu His Leu Ser Asn Ser Thr Ser Ala Phe Ser 1380 1385 1390 Thr Arg Ser Asp Ala Ser Gly Thr Asn Asp Phe Gln Arg Val Cys Ser 1395 1400 1405 Trp Glu Met Gln Lys Thr Ile Thr Asp Leu Arg Thr Gln Ile Lys Lys 1410 1415 1420 Leu Glu Ser Arg Leu Ser Thr Thr Glu Cys Val Asp Ala Gly Glu 1430 1435 1440 Ser His Ala Asn Asn Thr Lys Trp Lys Lys Asp Ala Cys Thr Ile Cys 1445 1450 1455 Glu Cys Lys Asp Gly Gln Val Thr Cys Phe Val Glu Ala Cys Pro Pro 1460 1465 1470 Ala Thr Cys Ala Val Pro Val Asn Ile Pro Gly Ala Cys Cys Pro Val 1475 1480 1485 Cys Leu Gln Lys Arg Ala Glu Glu Lys Pro 1490 1495 1498

<210> 1958 <211> 262 <212> PRT <213> Homo sapiens

<400> 1958 Phe Ser Phe Leu Cys Gly Val Ser Gly Arg Leu Gly Leu Asp Ser Glu
1 10 15 Glu Asp Tyr Tyr Thr Pro Gln Lys Val Asp Val Pro Lys Ala Leu Ile 20 25 30 Ile Val Ala Val Gln Cys Gly Cys Asp Gly Thr Phe Leu Leu Thr Gln 35 40 Ser Gly Lys Val Leu Ala Cys Gly Leu Asn Glu Phe Asn Lys Leu Gly 60 50 55 Leu Asn Gln Cys Met Ser Gly Ile Ile Asn His Glu Ala Tyr His Glu 75 70 Val Pro Tyr Thr Thr Ser Phe Thr Leu Ala Lys Gln Leu Ser Phe Tyr 85 90 Lys Ile Arg Thr Ile Ala Pro Gly Lys Thr His Thr Ala Ala Ile Asp 100 105 110 Glu Arg Gly Arg Leu Leu Thr Phe Gly Cys Asn Lys Cys Gly Gln Leu 115 120 125 Gly Val Gly Asn Tyr Lys Lys Arg Leu Gly Ile Asn Leu Leu Gly Gly 140 135 Pro Leu Gly Gly Lys Gln Val Ile Arg Val Ser Cys Gly Asp Glu Phe 150 155 Thr Ile Ala Ala Thr Asp Asp Asn His Ile Phe Ala Trp Gly Asn Gly 170

Gly Asn Gly Arg Leu Ala Met Thr Pro Thr Glu Arg Pro His Gly Ser 185 180 Asp Ile Cys Thr Ser Trp Pro Arg Pro Ile Phe Gly Ser Leu His His 205 200 Val Pro Asp Leu Ser Cys Arg Gly Trp His Thr Ile Leu Ile Val Glu 215 220 Lys Val Leu Asn Ser Lys Thr Ile Arg Ser Asn Ser Ser Gly Leu Ser 225 230 235 Ile Gly Thr Val Phe Gln Ser Ser Pro Gly Gly Gly Glu Gly 250 Gly Pro Asp Ala Trp 260 261

<210> 1959 <211> 139 <212> PRT <213> Homo sapiens

<400> 1959 Phe Phe Phe Glu Thr Glu Ser Arg Ser Val Ala Gln Ala Gly Val 1 5 10 Gln Trp Arg Asp Leu Gly Ser Leu Gln Ala Pro Pro Pro Gly Phe Thr 20 25 Pro Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Arg Pro 45 35 40 Pro Leu Arg Pro Ala Asn Phe Phe Val Phe Leu Val Glu Thr Gly Phe 55 60 His Arg Phe Ser Arg Asp Gly Leu Asp Leu Leu Thr Ser Gly Asp Pro 75 70 Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His Arg 85 90 Ala Arg Pro Arg Ile Asn Leu Arg Asn Val Ile Tyr Ser Phe Ala Val 105 110 Thr Tyr Cys Leu Asn Tyr Ile Ser Leu Ala Met Ser Ser Thr Leu Lys 120 125 115 Leu Ser Phe His Val Leu Ser Gly Ser 130 135 137

<210> 1960 <211> 80 <212> PRT <213> Homo sapiens

<210> 1961

<211> 459 <212> PRT <213> Homo sapiens

<400> 1961 Ala Asp Pro His Thr Thr Val Ile Arg Phe Phe Pro Ala Ala Ser Ala 5 10 Thr Lys Arg Val Leu Pro Pro Val Leu Arg Val Ser Ser Pro Arg Thr 20 25 Trp Asn Pro Asn Val Pro Glu Ser Pro Arg Ile Pro Ala Pro Arg Leu 35 40 Pro Lys Arg Met Ser Gly Ala Pro Thr Ala Gly Ala Ala Leu Met Leu 55 60 Cys Ala Ala Thr Ala Val Leu Leu Ser Ala Gln Gly Gly Pro Val Gln 70 75 Ser Lys Ser Pro Arg Phe Ala Ser Trp Asp Glu Met Asn Val Leu Ala 85 90 His Gly Leu Leu Gln Leu Gly Gln Gly Cys Ala Asn Thr Gly Ala His 100 105 Pro Gln Ser Ala Glu Arg Ala Gly Ala Arg Leu Ser Ala Cys Gly Ser 115 120 125 Ala Cys Gln Gly Thr Glu Gly Ser Thr Asp Leu Pro Leu Ala Pro Glu 135 140 Ser Arg Val Asp Pro Glu Val Leu His Ser Leu Gln Thr Gln Leu Lys 155 160 150 Ala Gln Asn Ser Arg Ile Gln Gln Leu Phe His Lys Val Ala Gln Gln 165 170 Gln Arg His Leu Glu Lys Gln His Leu Arg Ile Gln His Leu Gln Ser 180 185 Gln Phe Gly Leu Leu Asp His Lys His Leu Asp His Glu Val Ala Lys 195 200 205 Pro Ala Arg Arg Lys Arg Leu Pro Glu Met Ala Gln Pro Val Asp Pro 215 220 Ala His Asn Val Ser Arg Leu His Arg Leu Pro Arg Asp Cys Gln Glu 225 230 235 240 Leu Phe Gln Val Gly Glu Arg Gln Ser Gly Leu Phe Glu Ile Gln Pro 245 250 255 Gln Gly Ser Pro Pro Phe Leu Val Asn Cys Lys Met Thr Ser Asp Gly 260 265 Gly Trp Thr Val Ile Gln Arg Arg His Asp Gly Ser Val Asp Phe Asn 275 280 285 Arg Pro Trp Glu Ala Tyr Lys Ala Gly Phe Gly Asp Pro His Gly Glu 295 300 Phe Trp Leu Gly Leu Glu Lys Val His Ser Ile Thr Gly Asp Arg Asn 315 310 Ser Arg Leu Ala Val Gln Leu Arg Asp Trp Asp Gly Asn Ala Glu Leu 325 330 335 Leu Gln Phe Ser Val His Leu Gly Gly Glu Asp Thr Ala Tyr Ser Leu 340 345 350 Gln Leu Thr Ala Pro Val Ala Gly Gln Leu Gly Ala Thr Thr Val Pro 355 360 365 Pro Ser Gly Leu Ser Val Pro Phe Ser Thr Trp Asp Gln Asp His Asp 375 380 Leu Arg Arg Asp Lys Asn Cys Ala Lys Ser Leu Ser Gly Gly Trp Trp 390 395 Phe Gly Thr Cys Ser His Ser Asn Leu Asn Gly Gln Tyr Phe Arg Ser 405 410 415 Ile Pro Gln Gln Arg Gln Lys Leu Lys Lys Gly Ile Phe Trp Lys Thr 425 430 Trp Arg Gly Arg Tyr Tyr Pro Leu Gln Ala Thr Thr Met Leu Ile Gln 435 440 Pro Met Ala Ala Glu Ala Ala Ser 450 455 456

<210> 1962 <211> 54 <212> PRT <213> Homo sapiens

<210> 1963 <211> 125 <212> PRT <213> Homo sapiens

<400> 1963 Pro Leu Ala Gln Arg Arg Pro Phe Leu Trp Val Thr Val Lys Thr Asn Gly His Ile Trp Gly Ser Ser Thr Tyr Pro His Phe Trp Gly Ser Ser 25 20 Asn Ser Pro Ala Ser Ala Ser Gln Val Ala Gly Ile Pro Asn Ala Arg 35 40 His Gln Ala Arg Ile Ile Phe Val Phe Leu Val Glu Pro Arg Phe His 55 His Val Gly Arg Ala Gly Leu Gly Phe Leu Asn Leu Ala Ile Cys Leu 70 75 Pro Gln His Pro Lys Val Leu Gly Leu Gln Ala Cys Asn Leu Asn Ile 85 90 Lys Pro His Pro Ala His Lys Tyr Ile Ser Met Ile Gln Phe Asn Val 100 105 His Phe Met Cys Met Ser Val His Ile Tyr Ile 120 123

<210> 1964 <211> 143 <212> PRT <213> Homo sapiens

<210> 1965 <211> 137 <212> PRT <213> Homo sapiens

<400> 1965 Thr Ile Leu Pro Glu Lys Ile Gln Ala Trp Ala Gln Lys Gln Cys Pro 10 Gln Ser Gly Glu Glu Ala Val Ala Leu Val Val His Leu Glu Lys Glu 20 25 Thr Gly Arg Leu Arg Gln Gln Val Ser Ser Pro Val His Arg Glu Lys 35 40 His Ser Pro Leu Gly Ala Ala Trp Glu Val Ala Asp Phe Gln Pro Glu 50 55 60 Gln Val Glu Thr Gln Pro Arg Ala Val Ser Arg Glu Glu Pro Gly Ser 70 Leu His Ser Gly His Gln Glu Gln Leu Asn Arg Lys Arg Glu Arg Arg 85 90 Pro Leu Pro Lys Asn Ala Arg Pro Ser Pro Trp Val Pro Ala Leu Ala 105 110 100 Asp Glu Trp Asn Thr Leu His Gln Glu Val Thr Thr Thr Arg Leu Pro 115 120 Ala Gly Ser Gln Glu Pro Val Lys Asp 130 135 137

<210> 1966 <211> 95 <212> PRT <213> Homo sapiens

<400> 1966 Asp Phe Ala Leu Val Ala Gln Ala Gly Val Gln Trp His Asn Leu Gly 1 5 10 Ser Pro Gln Pro Leu Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser 20 25 Leu Pro Ser Ser Trp Glu Tyr Arg Cys Val Pro Pro Arg Leu Ala Asn 35 40 Phe Val Phe Leu Val Glu Met Gly Phe Leu His Val Gly Gln Ala Gly 55 60 Leu Glu Leu Pro Thr Ser Gly Asp Pro Pro Ala Leu Ala Ser Gln Ser 75 70 Ala Gly Ile Thr Gly Val Thr Thr Val Pro Ser Gly Pro Gly 85 90

<210> 1967 <211> 133 <212> PRT

<213> Homo sapiens

<221> misc_feature
<222> (1) ... (133)
<223> Xaa = any amino acid or nothing

<400> 1967 Kaa Arg His Gly Leu Arg Glu Pro Leu Leu Glu Arg Arg Cys Ala Ala 10 Ala Ser Ser Phe Gln His Ser Ser Ser Leu Gly Arg Glu Leu Pro Tyr 20 Asp Pro Val Asp Thr Glu Gly Phe Gly Glu Gly Gly Asp Met Gln Glu 40 Arg Phe Leu Phe Pro Glu Tyr Ile Leu Asp Pro Glu Pro Gln Pro Thr . 60 55 Arg Glu Lys Gln Leu Gln Glu Leu Gln Gln Gln Glu Glu Glu Glu 70 Arg Gln Arg Gln Gln Arg Arg Glu Glu Arg Arg Gln Gln Asn Leu Arg 90 Ala Arg Ser Arg Glu His Pro Val Val Gly His Pro Asp Pro Ala Leu 105 110 100 Pro Pro Ser Gly Val Asn Cys Ser Gly Cys Gly Ala Glu Leu His Cys 115 120 Gln Asp Ala Arg 130 132

<210> 1968 <211> 586 <212> PRT <213> Homo sapiens

<400> 1968 Ala Arg Ser Arg Asn Ser Ala Arg Gly Val Tyr Gly Met Cys Val Asp 10 Thr Leu Phe Leu Cys Phe Leu Glu Asp Leu Glu Arg Asn Asp Gly Ser 20 25 Ala Glu Arg Pro Tyr Phe Met Cys Ser Thr Leu Lys Lys Pro Leu Ala 40 35 Arg Arg Cys Phe Pro Ala Ile His Ala Tyr Lys Gly Val Leu Met Val Gly Asn Glu Thr Thr Tyr Glu Asp Gly His Gly Ser Arg Lys Asn Ile 70 Thr Asp Leu Val Glu Gly Ala Lys Lys Ala Asn Gly Val Leu Glu Ala 85 90 Arg Gln Leu Ala Met Arg Ile Phe Glu Asp Tyr Thr Val Ser Trp Tyr 105 110. 100 Trp Ile Ile Ile Gly Leu Val Ile Ala Met Ala Met Ser Leu Leu Ser 120 Ile Ile Leu Leu His Leu Leu Ala Gly Ile Met Gly Trp Val Met Ile 140 135 Ile Met Glu Ile Ser Glu Leu Gly Tyr Arg Ile Phe His Cys Tyr Met 150 155 Glu Tyr Ser Arg Leu Arg Gly Glu Ala Gly Ser Asp Val Ser Leu Val 170 165 Asp Leu Gly Phe Gln Thr Asp Phe Arg Val Tyr Leu His Leu Arg Gln 190 185 Thr Trp Leu Ala Phe Met Ile Ile Leu Ser Ile Leu Glu Val Ile Ile 200 205 Ile Leu Leu Ile Phe Leu Arg Lys Arg Ile Leu Ile Ala Ile Ala 215 220

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Leu Ile Lys Glu Ala Ser Arg Ala Val Gly Tyr Val Met Cys Ser Leu
225 230 235 240
Leu Tyr Pro Leu Val Thr Phe Phe Leu Leu Cys Leu Cys Ile Ala Tyr
                    250
           245
Trp Ala Ser Thr Ala Val Phe Leu Ser Thr Ser Asn Glu Ala Val Tyr
         260 265 . 270
Lys Ile Phe Asp Asp Ser Pro Cys Pro Phe Thr Ala Lys Thr Cys Asn
                      280
Pro Glu Thr Phe Pro Ser Ser Asn Glu Ser Arg Gln Cys Pro Asn Ala
                  295
                                   300
Arg Cys Gln Phe Ala Phe Tyr Gly Gly Glu Ser Gly Tyr His Arg Ala
        310
                             315
Leu Leu Gly Leu Gln Ile Phe Asn Ala Phe Met Phe Phe Trp Leu Ala
           325
                     330
Asn Phe Val Leu Ala Leu Gly Gln Val Thr Leu Ala Gly Ala Phe Ala
                              350
         340
                 345
Ser Tyr Tyr Trp Ala Leu Arg Lys Pro Asp Asp Leu Pro Ala Phe Pro
    355 360 365
Leu Phe Ser Ala Phe Gly Arg Ala Leu Arg Tyr His Thr Gly Ser Leu
                  375
                                   380
Ala Phe Gly Ala Leu Ile Leu Ala Ile Val Gln Ile Ile Arg Val Ile
              390
                                 395
Leu Glu Tyr Leu Asp Gln Arg Leu Lys Ala Ala Glu Asn Lys Phe Ala
            405
                           410
Lys Cys Leu Met Thr Cys Leu Lys Cys Cys Phe Trp Cys Leu Glu Lys
Phe Ile Lys Phe Leu Asn Arg Asn Ala Tyr Ile Met Ile Ala Ile Tyr
    435 440 445
Gly Thr Asn Phe Cys Thr Ser Ala Arg Asn Ala Phe Phe Leu Leu Met
                   455
                                  460
Arg Asn Ile Ile Arg Val Ala Val Leu Asp Lys Val Thr Asp Phe Leu
               470
                                475
Phe Leu Leu Gly Lys Leu Leu Ile Val Gly Ser Val Gly Ile Leu Ala
            485
                           490
Phe Phe Phe Thr His Arg Ile Arg Ile Val Gln Asp Thr Ala Pro
         500
                       505
                                         510
Pro Leu Asn Tyr Tyr Trp Val Pro Ile Leu Thr Val Ile Val Gly Ser
 515 520
                                     525
Tyr Leu Ile Ala His Gly Phe Phe Ser Val Tyr Gly Met Cys Val Asp
                  535
                                   540
Thr Leu Phe Leu Cys Phe Leu Glu Asp Leu Glu Arg Asn Asp Gly Ser
               550
                              555
Ala Glu Arg Pro Tyr Phe Met Ser Ser Thr Leu Lys Lys Leu Leu Asn
           565 570
Lys Thr Asn Lys Lys Ala Ala Glu Ser
         580
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<210> 1969 <211> 120 <212> PRT

<213> Homo sapiens

<400> 1969

Tyr Leu Thr Asp Pro Gln Ile His Ser Val Asp Gln Lys Val Phe Thr 65 70 75 80

Thr Asn Phe Gly Lys Arg Gly Ile Phe Tyr Phe Phe Asn Asn Gln His 90 95

Val Glu Cys Asn Glu Ile Cys His Arg Leu Ser Leu Thr Arg Pro Ser 100 105 110

Met Glu Lys Pro Cys Lys Ser 115 119

<210> 1970 <211> 811 <212> PRT <213> Homo sapiens

<400> 1970 Met Glu Arg Leu Trp Gly Leu Phe Gln Arg Ala Gln Gln Leu Ser Pro 10 Arg Ser Ser Gln Thr Val Tyr Gln Arg Val Glu Gly Pro Arg Lys Gly 25 20 His Leu Glu Glu Glu Glu Asp Gly Glu Glu Gly Ala Glu Thr Leu 40 35 Ala His Phe Cys Pro Met Glu Leu Arg Gly Pro Glu Pro Leu Gly Ser -60 55 Arg Pro Arg Gln Pro Asn Leu Ile Pro Trp Ala Ala Gly Arg Arg 70 Ala Ala Pro Tyr Leu Val Leu Thr Ala Leu Leu Ile Phe Thr Gly Ala 85 Phe Leu Leu Gly Tyr Val Ala Phe Arg Gly Ser Cys Gln Ala Cys Gly 105 100 Asp Ser Val Leu Val Val Ser Glu Asp Val Asn Tyr Glu Pro Asp Leu 125 115 120 Asp Phe His Gln Gly Arg Leu Tyr Trp Ser Asp Leu Gln Ala Met Phe 140 135 Leu Gln Phe Leu Gly Glu Gly Arg Leu Glu Asp Thr Ile Arg Gln Thr 150 155 Ser Leu Arg Glu Arg Val Ala Gly Ser Ala Gly Met Ala Ala Leu Thr 170 165 Gln Asp Ile Arg Ala Ala Leu Ser Arg Gln Lys Leu Asp His Val Trp 185 190 Thr Asp Thr His Tyr Val Gly Leu Gln Phe Pro Asp Pro Ala His Pro 200 205 195 Asn Thr Leu His Trp Val Asp Glu Ala Gly Lys Val Gly Glu Gln Leu 215 220 Pro Leu Glu Asp Pro Asp Val Tyr Cys Pro Tyr Ser Ala Ile Gly Asn 225 230 235 240 230 Val Thr Gly Glu Leu Val Tyr Ala His Tyr Gly Arg Pro Glu Asp Leu 250 245 Gln Asp Leu Arg Ala Arg Gly Val Asp Pro Val Gly Arg Leu Leu Leu 265 260 Val Arg Val Gly Val Ile Ser Phe Ala Gln Lys Val Thr Asn Ala Gln 285 280 Asp Phe Gly Ala Gln Gly Val Leu Ile Tyr Pro Glu Pro Ala Asp Phe 300 295 Ser Gln Asp Pro Pro Lys Pro Ser Leu Ser Ser Gln Gln Ala Val Tyr 310 315 Gly His Val His Leu Gly Thr Gly Asp Pro Tyr Thr Pro Gly Phe Pro 325 330 335 Ser Phe Asn Gln Thr Gln Phe Pro Pro Val Ala Ser Ser Gly Leu Pro 350 345 340 Ser Ile Pro Ala Gln Pro Ile Ser Ala Asp Ile Ala Ser Arg Leu Leu 360

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Arg Lys Leu Lys Gly Pro Val Ala Pro Gln Glu Trp Gln Gly Ser Leu
   370
           375
                            380
Leu Gly Ser Pro Tyr His Leu Gly Pro Gly Pro Arg Leu Arg Leu Val
385
                 390
                                     395
Val Asn Asn His Arg Thr Ser Thr Pro Ile Asn Asn Ile Phe Gly Cys
               405
                                 410
Ile Glu Gly Arg Ser Glu Pro Asp His Tyr Val Val Ile Gly Ala Gln
           420
                             425
                                                430
Arg Asp Ala Trp Gly Pro Gly Ala Ala Lys Ser Ala Val Gly Thr Ala
      435
                      440
                                          445
Ile Leu Leu Glu Leu Val Arg Thr Phe Ser Ser Met Val Ser Asn Gly
             455
                                     460
Phe Arg Pro Arg Arg Ser Leu Leu Phe Ile Ser Trp Asp Gly Gly Asp
                  470
                                     475
Phe Gly Ser Val Gly Ser Thr Glu Trp Leu Glu Gly Tyr Leu Ser Val
                                 490
             485
Leu His Leu Lys Ala Val Val Tyr Val Ser Leu Asp Asn Ala Val Leu
          500
                             505
                                      510
Gly Asp Asp Lys Phe His Ala Lys Thr Ser Pro Leu Leu Thr Ser Leu
                         520
                                     525
Ile Glu Ser Val Leu Lys Gln Val Asp Ser Pro Asn His Ser Gly Gln
                     535
Thr Leu Tyr Glu Gln Val Val Phe Thr Asn Pro Ser Trp Asp Ala Glu
                550
                                    555
Val Ile Arg Pro Leu Pro Met Asp Ser Ser Ala Tyr Ser Phe Thr Ala
              565
                               570
Phe Val Gly Val Pro Ala Val Glu Phe Ser Phe Met Glu Asp Asp Gln
          580
                             585
Ala Tyr Pro Phe Leu His Thr Lys Glu Asp Thr Tyr Glu Asn Leu His
                         600
                                            605
Lys Val Leu Gln Gly Arg Leu Pro Ala Val Ala Gln Ala Val Ala Gln
                     615
                                        620
Leu Ala Gly Gln Leu Leu Ile Arg Leu Ser His Asp Arg Leu Leu Pro
                 630
                                     635
Leu Asp Phe Gly Arg Tyr Gly Asp Val Val Leu Arg His Ile Gly Asn
                                650
             645
Leu Asn Glu Phe Ser Gly Asp Leu Lys Ala Arg Gly Leu Thr Leu Gln
                            665
          660
                                                670
Trp Val Tyr Ser Ala Arg Gly Asp Tyr Ile Arg Ala Ala Glu Lys Leu
      675
                         680
Arg Gln Glu Ile Tyr Ser Ser Glu Glu Arg Asp Glu Arg Leu Thr Arg
                     695
Met Tyr Asn Val Arg Ile Met Arg Val Glu Phe Tyr Phe Leu Ser Gln
                  710
                                     715
Tyr Val Ser Pro Ala Asp Ser Pro Phe Arg His Ile Phe Met Gly Arg
              725
                               730
Gly Asp His Thr Leu Gly Ala Leu Leu Asp His Leu Arg Leu Leu Arg
          740
                             745
Ser Asn Ser Ser Gly Thr Pro Gly Ala Thr Ser Ser Thr Gly Phe Gln
                          760
Glu Ser Arg Phe Arg Arg Gln Leu Ala Leu Leu Thr Trp Asp Ala Cys
                     775
                                        780
Lys Gly Ala Ala Asn Ala Leu Ser Gly Asp Val Trp Asn Ile Asp Asn
785
                790
Asn Phe
   802
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<210> 1971

<211> 152

<212> PRT

<213> Homo sapiens

<400> 1971 Ile Ser Arg Val Asp Asp Phe Val Gly Ser Gly Ile Ala Asn Val Ile 10 Ile Ala Val Ala Ile Phe Ser Ile Pro Ala Phe Ala Arg Leu Val Arg 25 Gly Asn Thr Leu Val Leu Lys Gln Gln Thr Phe Ile Glu Ser Ala Arg 45 35 40 Ser Ile Gly Ala Ser Asp Met Thr Val Leu Leu Arg His Ile Leu Pro 55 60 Gly Thr Gly Ser Ser Ile Val Val Phe Phe Thr Met Arg Ile Gly Thr 70 75 Ser Ile Ile Ser Ala Ala Ser Leu Ser Phe Leu Gly Leu Gly Ala Gln 85 90 Pro Pro Thr Pro Glu Trp Gly Ala Met Leu Asn Glu Ala Arg Ala Asp 105 Met Val Ile Ala Pro His Val Ala Val Phe Pro Ala Leu Ala Ile Phe 120 125 115 Leu Thr Val Leu Ala Phe Asn Leu Leu Gly Asp Gly Leu Arg Asp Ala 135 140 Leu Asp Pro Lys Ile Lys Gly 150 151

<210> 1972 <211> 275 <212> PRT

<213> Homo sapiens

<400> 1972 Leu Val Tyr Val Met Ile Ala Ile Phe Cys Ile Ala Ser Ala Met Ser 10 Leu Tyr Asn Cys Leu Ala Ala Leu Ile His Lys Ile Pro Tyr Gly Gln Cys Thr Ile Ala Cys Arg Gly Lys Asn Met Glu Val Arg Leu Ile Phe 35 40 Leu Ser Gly Leu Cys Ile Ala Val Ala Val Val Trp Ala Val Phe Arg 55 Asn Glu Asp Arg Trp Ala Trp Ile Leu Gln Asp Ile Leu Gly Ile Ala **75** . 70 Phe Cys Leu Asn Leu Ile Lys Thr Leu Lys Leu Pro Asn Phe Lys Ser Cys Val Ile Leu Leu Gly Leu Leu Leu Tyr Asp Val Phe Phe Val 100 105 110 Phe Ile Thr Pro Phe Ile Thr Lys Asn Gly Glu Ser Ile Met Val Glu 115 120 125 Leu Ala Ala Gly Pro Phe Gly Asn Asn Glu Lys Asn Asp Gly Asn Leu 140 135 Val Glu Ala Thr Gly Gln Pro Ser Ala Pro His Glu Lys Leu Pro Val 150 155 Val Ile Arg Val Pro Lys Leu Ile Tyr Phe Ser Val Met Ser Val Cys 165 170 175 Leu Met Pro Val Ser Ile Leu Gly Phe Gly Asp Ile Ile Val Pro Gly 185 Leu Leu Ile Ala Tyr Cys Arg Arg Phe Asp Val Gln Thr Gly Ser Ser 200 205 Tyr Ile Tyr Tyr Val Ser Val Thr Val Ala Tyr Ala Ile Gly Met Ile 215 220 Leu Thr Phe Val Val Leu Gly Leu Met Lys Lys Gly Gln Pro Ala Leu 235 230 Leu Tyr Leu Val Pro Cys Thr Leu Ile Thr Ala Cys Gln Phe Val Ala 250

Trp Glu Thr Val Arg Glu Met Lys Lys Phe Trp Glu Arg Val Thr Ser 260 265 270 272

<210> 1973
<211> 224
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (224)
<223> Xaa = any amino acid or nothing

<400> 1973 Thr Leu Val Ser Val Val Glu Phe Val Arg Arg Ala Asp Leu Thr Arg 5 10 Glu Asp Leu Ala Pro Ser Ser Val Asp Ser Gly Gln Ala Gly Phe Gly 20 25 Gly Cys Cys Glu Ser Gly Leu Pro Asn Thr Met Pro Ser Ala Phe Ser 35 40 Val Ser Ser Phe Pro Val Ser Ile Pro Ala Val Leu Thr Gln Thr Asp 50 .55 60 Trp Thr Glu Pro Trp Leu Met Gly Leu Ala Thr Phe His Ala Leu Cys 65 70 75 80 65 Val Leu Leu Thr Cys Leu Ser Ser Arg Ser Tyr Arg Leu Gln Ile Gly 90 His Phe Leu Cys Leu Val Ile Leu Val Tyr Cys Ala Glu Tyr Ile Asn 100 105 110 Glu Ala Ala Ala Met Asn Trp Arg Leu Phe Ser Lys Tyr Gln Tyr Phe 120 125 115 Asp Ser Arg Gly Met Phe Ile Ser Ile Val Phe Ser Ala Pro Leu Leu 140 135 Val Asn Ala Met Ile Ile Val Val Met Trp Val Trp Lys Thr Leu Asn 145 150 155 Val Met Thr Asp Leu Lys Asn Ala Gln Glu Arg Arg Lys Glu Lys Lys 165 170 Arg Arg Arg Lys Glu Asp Xaa Gly Ala Ala Ala Trp Ser Leu Arg 190 180 185 Pro Ser Arg Pro Pro Ser Ala Ala Pro Ser Ala Ala Val Cys Val Ala 195 200 205 Trp Ala Ser Phe Gln Leu Thr His Gly Leu Lys Asn Arg Cys Phe Ile 215 220

<210> 1974 <211> 168 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(168) <223> Xaa = any amino acid or nothing

<400> 1974
Val Ser Cys Tyr Thr Ala Leu Gln Ser Ile Met Asn Gln Pro Glu Ser
1 5 10 15

Ala Asn Asp Pro Glu Pro Leu Cys Ala Val Cys Gly Gln Ala His Ser 25 Leu Glu Glu Asn His Phe Tyr Ser Tyr Pro Glu Glu Val Asp Asp Asp 40 45 Leu Ile Cys His Ile Cys Leu Gln Ala Leu Leu Asp Pro Leu Asp Thr 55 60 Pro Cys Gly His Thr Tyr Cys Thr Leu Cys Leu Thr Asn Phe Leu Val 70 Glu Lys Asp Phe Cys Pro Met Asp Arg Lys Pro Leu Val Leu Gln His 85 90 Cys Lys Lys Ser Ser Ile Leu Val Asn Lys Leu Leu Asn Lys Leu Leu 110 100 105 Val Thr Cys Pro Phe Arg Glu His Cys Thr Gln Val Leu Gln Arg Cys 115 120 125 Asp Leu Glu His His Phe Gln Thr Ser Gln Ala Trp Gly Thr His Leu 130 135 140 Xaa Ser Gln Leu Leu Gly Arg Leu Arg Gln Glu Asp Cys Leu Ser Pro 145 150 155 Gly Val His His Cys Ser Glu Val 165

<210> 1975

<211> 48

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(48)

<223> Xaa = any amino acid or nothing

## <400> 1975

Cys Phe Leu Ser Pro Ser Pro Leu Leu Pro Pro Leu Leu Leu Ser Ser 1 10 15 

Ser Ser Ser Pro Ser Phe Pro Leu Pro Pro Pro Pro Thr Leu Leu Pro 20 25 30 

Ser Thr Leu Pro Pro Pro Leu Leu Ile Pro Ser Ser Xaa Leu Ser Pro 35 48

<210> 1976

<211> 81

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(81)

<223> Xaa = any amino acid or nothing

## <400> 1976

Asn Ser Pro Ala Ser Ala Ser Gln Val Ala Gly Ile Ala Gly Thr His 65 70 75 His 81 <210> 1977 <211> 100 <212> PRT <213> Homo sapiens <221> misc feature <222> (1) ... (100) <223> Xaa = any amino acid or nothing <400> 1977 Phe Phe Phe Glu Thr Lys Pro Phe Phe Ala Pro Gln Ala Gly Gly · 5 10 Gln Gly Pro Ser Arg Gly Ser Leu Asn Pro Leu Pro Thr Gly Leu Lys Gln Phe Ser Gly Leu Thr Leu Ser Arg Ser Gly Asn Asn Gly Pro Arg 35 40 45 Pro Pro Pro Arg Val Asn Phe Gly Ile Leu Arg Gly Asn Gly Val Pro 55 60 Pro Gly Gly Ala Gly Xaa Pro Arg Pro Pro Asp Leu Arg Gly Pro Pro 70 75 Gly Leu Ala Pro Pro Gln Gly Gly Asn Asn Gly Gly Asp Pro Pro Ala Arg Ala Tyr Leu 100 <210> 1978 <211> 191 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (191) <223> Xaa = any amino acid or nothing <400> 1978 Lys Leu Phe Ser Ser Gln Arg Leu Phe Gly Pro His Ile Gln Ala Ile 5 10 Asn Pro Ser Phe Leu Leu Ser Phe Phe Pro Ser Xaa Leu Leu Ala 20 25 30 Met Arg Thr Val Gly Asn Asn Ala Phe Ile Leu Val Phe Leu Val Tyr 35 40 Arg Ile Val Leu Leu Phe Xaa His Val Xaa Pro Ala Tyr Phe Gln 55 60 Pro Ser Lys Asn Lys Thr Ala Lys Ile Asn Cys Asn Xaa Arg Pro Phe 70 75 Leu Phe Leu Val Cys Tyr Leu Leu Xaa Ala Glu Leu His Ile Gly Ile 85 90 Phe Ile Ala Asn Phe Tyr Asp Cys Ile Pro Asn Lys Leu Asn Glu His 100 105 110 Leu Trp Pro Lys Leu Leu Gln Ser Leu Ile Phe His Val Asp Phe Cys 115 120 125

140

Gly Phe Leu His Lys Val Phe Tyr Ile Cys Phe Thr Glu Phe Leu Leu

135

 Phe Leu Tyr Phe Leu Xaa Leu Phe Ile Ile Lys Val Ser Cys Ser Ile

 145
 150

 Ile Xaa Cys Ser Thr Ile Cys Val Phe Ser Tyr Lys Ser Phe Ala Val

 165
 170

 175

 Ile Ile Phe Phe Val Asp Asn Thr Arg Phe Phe Ser Phe Gly Phe

 180
 185

<210> 1979
<211> 326
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (326)
<223> Xaa = any amino acid or nothing

<400> 1979 His His Glu Leu His Thr Leu Glu Leu Leu Gln Asn Pro Lys Glu Val Leu Thr Arg Ser Glu Ile Gln Asp Val Asn Tyr Ser Leu Glu Ala Val Lys Val Lys Thr Val Cys Gln Ile Pro Leu Met Lys Glu Met Leu Lys Arg Phe Gln Val Ala Val Asn Leu Ala Glu Asp Thr Ala His Pro Lys Leu Val Phe Ser Gln Glu Gly Arg Tyr Val Lys Asn Thr Ala Ser Ala Ser Ser Trp Pro Val Phe Ser Ser Ala Trp Asn Tyr Phe Ala Gly Trp Arg Asn Pro Gln Lys Thr Ala Phe Val Glu Arg Phe Gln His Leu Ser Cys Val Leu Gly Lys Asn Val Phe Thr Ser Gly Lys His Tyr Trp Glu Val Glu Ser Arg Asp Ser Leu Glu Val Ala Val Gly Val Cys Arg Glu Asp Val Met Gly Ile Thr Asp Arg Ser Lys Met Ser Pro Asp Val Gly Ile Trp Ala Ile Tyr Trp Ser Ala Ala Gly Tyr Trp Pro Leu Ile Gly Phe Pro Gly Thr Pro Thr Gln Gln Glu Pro Ala Leu His Arg Val Gly Val Tyr Leu Asp Arg Gly Thr Gly Asn Val Ser Phe Tyr Ser Ala Val Asp Gly Val His Leu His Thr Phe Ser Cys Ser Ser Val Ser Arg Leu Arg Pro Phe Phe Trp Leu Ser Pro Leu Ala Ser Leu Val Ile Pro Pro Val Thr Asp Arg Lys Kaa Gly Phe Ser Ser Pro Asp Gln Asn Ser Phe Pro Val Val Gln Leu Arg Asp Thr His Pro Trp Ala Leu Phe Cys Pro Ser Cys Leu Tyr Pro Gly Trp Ser Ile Phe Trp Val Ser Leu Thr Val Pro Phe Gly Ile Cys Pro Leu Cys Ala Ser Gln Glu Ala Val Pro Trp Glu Val Gly Leu Ala Asn Gly Asp Gly Thr Gly Asn Phe Pro Arg Arg Phe Trp Glu Ile Phe Leu 325 326

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<210> 1980
    <211> 118
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(118)
    <223> Xaa = any amino acid or nothing
    <400> 1980
Phe Phe Phe Phe Glu Thr Glu Ser His Ser Val Ala Gln Ala Gly
                                  10
Met Gln Trp Arg Asn Leu Gly Ser Leu Pro Ala Pro Pro Pro Gly Phe 20 25 30
Thr Pro Phe Phe Cys Leu Ser Leu Leu Asn Gly Trp Asp Tyr Arg Arg
                                              45
     35
                        40
Pro Pro Pro His Leu Ala Asn Phe Phe Val Leu Leu Val Glu Thr Gly
                       55
                                   60
Phe His Asp Val Gly Gln Asp Gly Leu Asp Leu Leu Thr Ser Xaa Ser
                   70
                                      75
Thr Pro Ser Ala Ser Gln Ser'Ala Glu Ile Thr Gly Val Ser His Cys
85 90 95
              85
Thr Arg Leu Lys Lys Ile Arg Phe Ala Lys Gly His Val Glu Phe Phe
        100
                     105
Phe Glu Ser His Val Glu
       115
    <210> 1981
    <211> 113
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(113)
     <223> Xaa = any amino acid or nothing
    <400> 1981
Thr Pro Ile Arg Gly Thr Asp Asp Glu His Glu Glu Cys Thr Val Gln
Glu Tyr Ser Ala Gly Lys Asn Thr Cys Leu Arg Pro Gly Ala Val Ala
                               25
        20
His Thr Cys Asn Pro Cys Thr Leu Gly Gly Arg Gly Arg Trp Ile Thr
                                              45
      35
                           40
Xaa Gly Ser Gly Val Gln Asp Gln Pro Gly Pro Thr Trp Gln Asn Pro
                       55
                                          60
Val Phe Leu Glu Arg Arg Pro Arg Ala Leu His Ser Ser Pro Gly Leu
                                       75
Thr Thr Gln Arg Ile Leu Trp Ala Gln Gly Leu Trp Val Gly Ala Gly
              85
                                90
Ser Thr Gly Cys Ser Arg Gly Pro Arg Gly Glu Gly Val Phe Arg Glu
                              105
           100
Gly
113
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<210> 1982 <211> 93 <212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(93)

<223> Xaa = any amino acid or nothing

<210> 1983 <211> 455 <212> PRT

<213> Homo sapiens

<400> 1983 Arg Thr Leu Gly Met Glu Gly Glu Arg Arg Ala Ser Gln Ala Pro Ser Ser Gly Leu Pro Ala Gly Gly Ala Asn Gly Glu Ser Pro Gly Gly Gly 25 Ala Pro Phe Pro Gly Ser Ser Gly Ser Ser Ala Leu Leu Gln Ala Glu Val Leu Asp Leu Asp Glu Asp Glu Asp Leu Glu Val Phe Ser Lys Asp Ala Ser Leu Met Asp Met Asn Ser Phe Ser Pro Met Met Pro Thr 70 75 Ser Pro Leu Ser Met Ile Asn Gln Ile Lys Phe Glu Asp Glu Pro Asp 85 90 Leu Lys Asp Leu Phe Ile Thr Val Asp Glu Pro Glu Ser His Val Thr 105 Thr Ile Glu Thr Phe Ile Thr Tyr Arg'Ile Ile Thr Lys Thr Ser Arg 120 115 Gly Glu Phe Asp Ser Ser Glu Phe Glu Val Arg Arg Arg Tyr Gln Asp 140 . 135 Phe Leu Trp Leu Lys Gly Lys Leu Glu Glu Ala His Pro Thr Leu Ile 155 150 Ile Pro Pro Leu Pro Glu Lys Phe Ile Val Lys Gly Met Val Glu Arg 170 175 165 Phe Asn Asp Asp Phe Ile Glu Thr Arg Arg Lys Ala Leu His Lys Phe 180 185 Leu Asn Arg Ile Ala Asp His Pro Thr Leu Thr Phe Asn Glu Asp Phe 200 205 Lys Ile Phe Leu Thr Ala Gln Ala Trp Glu Leu Ser Ser His Lys Lys 215 220 Gln Gly Pro Gly Leu Leu Ser Arg Met Gly Gln Thr Val Arg Ala Val 230 235 Ala Ser Ser Met Arg Gly Val Lys Asn Arg Pro Glu Glu Phe Met Glu 250 Met Asn Asn Phe Ile Glu Leu Phe Ser Gln Lys Ile Asn Leu Ile Asp

Lys Ile Ser Gln Arg Ile Tyr Lys Glu Glu Arg Glu Tyr Phe Asp Glu 275 280 285 Met Lys Glu Tyr Gly Pro Ile His Ile Leu Trp Ser Ala Ser Glu Glu 290 295 Asp Leu Val Asp Thr Leu Lys Asp Val Ala Ser Cys Ile Asp Arg Cys 310 315 Cys Lys Ala Thr Glu Lys Arg Met Ser Gly Leu Ser Glu Ala Leu Leu 325 330 Pro Val Val His Glu Tyr Val Leu Tyr Ser Glu Met Leu Met Gly Val 340 345 350 Met Lys Arg Arg Asp Gln Ile Gln Ala Glu Leu Asp Ser Lys Val Glu 360 365 Val Leu Thr Tyr Lys Lys Ala Asp Thr Asp Leu Leu Pro Glu Glu Ile 380 370 375 Gly Lys Leu Glu Asp Lys Val Glu Cys Ala Asn Asn Ala Leu Lys Ala 385 390 395 Asp Trp Glu Arg Trp Lys Gln Asn Met Gln Asn Asp Ile Lys Leu Ala 405 410 Phe Thr Asp Met Ala Glu Glu Asn Ile His Tyr Tyr Glu Gln Cys Leu 420 425 430 Ala Thr Trp Glu Ser Phe Leu Thr Ser Gln Thr Asn Leu His Leu Glu 435 440 445 Glu Ala Ser Glu Asp Lys Pro 450

<210> 1984 <211> 87 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(87) <223> Xaa = any amino acid or nothing

<210> 1985 <211> 99 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(99) <223> Xaa = any amino acid or nothing

<400> 1985

PCT/US01/03800 WO 01/57188

Tyr Ile Lys Gln Pro Asp Ala Lys Glu Arg Arg Arg Thr Val His Trp 10 Lys Lys Glu Thr Glu Ser Glu Ala Ser Glu Ile Thr Ile Pro Pro Ser 30 20 25 Thr Pro Gly Val Pro Gln Ala Pro Gly His Trp Glu Asp Tyr Gly Arg 40 45 Gly Asp Asn Phe Tyr Leu Pro His Xaa Asp Pro Gly Gly Ile Val Leu 55 Trp Asn Ile Phe Asn Arg Met Pro Ile Ala Arg Lys Asn Ile Thr Asp 75 70 Gly Glu His His Glu Tyr Leu Ile Glu Val Pro Arg Leu Phe His Thr 90 Ser Glu Asp

99

<210> 1986

<211> 116

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(116)

<223> Xaa = any amino acid or nothing

<400> 1986 Glu Lys Pro Asp His Phe Phe Pro Glu Gly Thr Ser Phe Ile His Glu 1 . 5 10 Pro Arg Arg Pro Asn Kaa Gly Asp Leu Val His Cys Leu Gly Gly Ile 25 Ser Arg Ser Thr Thr Val Thr Val Ala Xaa Leu Met Gln Lys Leu Asn 35 40 Leu Ser Met Asn Asp Ala Tyr Tyr Ile Val Ile Met Lys Met Ser Ser 55 Ile Ser Pro Asn Phe Asn Ser Met Asp Gln Pro Leu Asp Phe Gln Arg 70 75 Thr Leu Gly Leu Arg Ser Pro Cys Tyr Asn Arg Val Pro Ala Gln Lys 90 Met Tyr Phe Thr Thr Pro Ser Asn His Asn Ala Tyr Gln Val Asp Ser 105 Val Gln Ser Thr

115 116

<210> 1987

<211> 137

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (137)

<223> Xaa = any amino acid or nothing

<400> 1987 Asm Thr Gly Leu Thr Cys Ser Ile Gln Arg Lys Cys Gly Glu Thr Gln 10 Leu Tyr Arg Arg Glu Glu Asn Arg Leu Ile Leu Leu Gln Asp His 20 25 30 Leu Lys Ser Glu Ser Phe Gln Val Leu Thr Leu Ser Pro Arg Leu Glu 35 40

 Phe
 Ser
 Gly
 Leu
 Ile
 Ser
 Ala
 His
 Cys
 Asn
 Leu
 Arg
 Leu
 Pro
 Gly
 Ser
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 Ala
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<210> 1988 <211> 189 <212> PRT <213> Homo sapiens

<400> 1988 Gly Gly Met Asp Ser Arg Val Ser Gly Thr Thr Ser Asn Gly Glu Thr 1 5 10 15 Lys Pro Val Tyr Pro Val Met Glu Lys Lys Glu Glu Asp Gly Thr Leu 20 25 30 Glu Arg Gly His Trp Asn Asn Lys Met Glu Phe Val Leu Ser Val Ala 40 Gly Glu Ile Ile Gly Leu Gly Asn Val Trp Arg Phe Pro Tyr Leu Cys 55 60 Tyr Lys Asn Gly Gly Gly Ala Phe Phe Ile Pro Tyr Leu Val Phe Leu 70 75 Phe Thr Cys Gly Ile Pro Val Phe Leu Leu Glu Thr Ala Leu Gly Gln 85 90 95 Tyr Thr Ser Gln Gly Gly Val Thr Ala Trp Arg Lys Ile Cys Pro Ile 100 105 110 Phe Glu Gly Ile Gly Tyr Ala Ser Gln Met Ile Val Ile Leu Leu Asn 120 Val Tyr Tyr Ile Ile Val Leu Ala Trp Ala Leu Phe Tyr Leu Phe Ser 130 135 140 Ser Phe Thr Ile Asp Leu Pro Trp Gly Gly Cys Tyr His Glu Trp Asn 145 150 155 . 160 Thr Glu His Cys Met Glu Phe Gln Lys Thr Asn Gly Ser Leu Asn Gly 165 170 175 Thr Ser Glu Asn Ala Thr Ser Pro Val Ile Glu Phe Trp 180 185

<210> 1989
<211> 113
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(113)
<223> Xaa = any amino acid or nothing

<400> 1989
Gln Gly Leu Thr Leu Leu Pro Arg Met Glu Cys Ser Ala Thr Ile Thr
1 5 10 15
Ala His Cys Ser Leu Glu Leu Pro Gly Ser Ile Asp Leu Pro Thr Ser
20 25 30

Ala Ser Xaa Val Ala Arg Thr Thr Gly Thr His His His Pro Trp Leu 40 Ile Leu Val Leu Leu Leu Xaa Thr Trp Gly Ser Tyr Tyr Val Ala Gln 55 60 50 Ala Gly Leu Glu Leu Leu Gly Ser Ser Asn Leu Pro Ala Ala Met Val 70 Ser Gln Ser Ala Gln Ile Ile Gly His Asp His Cys Ala Trp Ala Thr 85 90 Ser Asn His Val Leu Tyr Thr Gln Glu Gly Leu Arg Arg Gly Lys Glu 105 110 Gly 113

<210> 1990

<211> 175

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (175)

<223> Xaa = any amino acid or nothing

<400> 1990 Gly Arg Ile Asp Cys Pro His Pro Ala Thr Val Leu Ala Gln Pro Ile 10 Phe Ile Asp Ala Cys Ser Val Leu Gly Ala Tyr Gln Gly Ala Gln Asn 25 20 Trp Ile Arg Arg Arg Pro Cys Leu Pro Ser Gly Cys Leu Lys Met Asn 40 35 Arg Glu Ile Gly Pro Leu Gln His Ser Leu Cys Cys Pro Gly Trp Ser 55 Gln Thr Pro Gly Leu Lys Ala Ile Leu Leu Arg Gln Pro Pro Lys Xaa Leu Gly Leu Gln Met Glu Ser His Ser Cys Pro Pro Ala Trp Ser Ala 85 90 Met Ala Arg Ser Arg Leu Thr Ala Thr Ser Ala Ser Gln Val Gln Ala 100 105 Ile Leu Leu Pro Gln Pro Pro Gly Thr Thr Asp Ser Cys Ser Pro Ser 120 125 Pro Asp His Glu Gln Gln Pro Leu Ser Trp Val Leu Pro Pro Pro Gln 140 135 130 Lys Asp Met Asn Pro Arg Glu Gln Gln Val Ala Leu Gly Pro Gln Ala 145 150 155 Ala Ala Leu Pro Trp Ala Val Trp Arg Asn Asp Cys Phe Pro Arg 170 165

<210> 1991 <211> 152 <212> PRT <213> Homo sapiens

Cys Pro Gln Pro Val Pro Ala Gly Thr His Ala Thr Trp Cys Leu Ala 60 50 55 Arg Val Trp Ala Arg Met Thr Pro Pro Gly Pro Ala Gly Ile Pro Ser 70 75 His Pro Leu Pro Pro Pro Pro Glu Arg Ser Val Pro Ile Pro Ser 85 90 Pro Phe Pro Ala Arg Asp Ser Gly Ser Arg Gln Gly His Ser Thr Asp 100 105 110 Arg Tyr Lys His Thr Asp Ala Pro Arg Asp Ala His Arg Arg Val Pro 125 120 115 Gln Arg Asp Thr Asp Thr Gly Val His Thr Gly Ser Gly Thr His Thr 130 135 His Ala His Thr Pro Pro Glu Lys 145 150 152

<210> 1992 <211> 162 <212> PRT <213> Homo sapiens

162

<210> 1993

<400> 1992 Gly Tyr Ser Phe Arg Cys Asp Ile Val Asp Tyr Ser Arg Ser Pro Thr 1 5 10 Ala Leu Arg Met Ala Arg Thr Cys Trp Leu Tyr Tyr Phe Ser Lys Phe 25 Ile Glu Leu Leu Asp Thr Ile Phe Phe Val Leu Arg Lys Lys Asn Ser 35 40 Gln Val Thr Phe Leu His Val Phe His His Thr Ile Met Pro Trp Thr 50 55 60 Trp Trp Phe Gly Val Lys Phe Ala Ala Gly Gly Leu Gly Thr Phe His 70 75 Ala Leu Leu Asn Thr Ala Val His Val Val Met Tyr Ser Tyr Tyr Gly 85 90 Leu Ser Ala Leu Gly Pro Ala Tyr Gln Lys Tyr Leu Trp Trp Lys Lys 105 Tyr Leu Thr Ser Leu Gln Leu Val Gln Phe Val Ile Val Ala Ile His 115 120 125 Ile Ser Gln Phe Phe Phe Met Glu Asp Cys Lys Tyr Gln Phe Pro Val 130 135 140 Phe Ala Cys Ile Ile Met Ser Tyr Ser Phe Met Phe Leu Leu Leu Phe 150 155 Leu His

<211> 146
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (146)
<223> Xaa = any amino acid or nothing

Leu Gln Glu Ile Pro Leu Ser Glu Ile Leu Arg Ile Ser Ser Pro Arg 40 Asp Phe Thr Asn Ile Ser Gln Gly Ser Asn Pro His Cys Phe Glu Ile 50 55 60 Ile Thr Asp Thr Met Val Tyr Phe Val Gly Glu Asn Asn Gly Asp Ser 70 Ser His Asn Pro Val Leu Ala Ala Thr Gly Val Gly Leu Asp Val Ala 85 90 Gln Ser Trp Glu Lys Ala Ile Arg Gln Ala Leu Met Pro Val Thr Pro 100 105 . 110 Gln Ala Ser Val Cys Thr Ser Pro Gly Gln Gly Lys Asp His Ser Lys 115 120 Gln Kaa Ala Ser Val Cys Thr Ser Pro Gly Gln Gly Lys Asp His Ser 135 140 Lys Gln 145 146

<210> 1994 <211> 117 <212> PRT

<213> Homo sapiens

<400> 1994 Ala Tyr Pro Leu Phe Ala Val His Pro Val His Thr Glu Cys Val Ala 10 Gly Val Val Gly Arg Ala Tyr Leu Leu Cys Ala Leu Phe Phe Leu Leu 20 25 Ser Phe Leu Gly Tyr Cys Lys Ala Phe Arg Glu Ser Asn Lys Glu Gly 40 Ala His Ser Ser Thr Phe Trp Val Leu Leu Ser Ile Phe Leu Gly Ala 55 Val Ala Met Leu Cys Lys Glu Gln Gly Ile Thr Val Leu Val Arg Ala 70 Ala Thr Trp Leu Gly Pro Ala Phe Ser Val Cys Pro Phe Pro Ser Tyr 85 90 Lys Asp Ile Trp Gly Trp Pro Cys Leu Cys Gly Val Leu His Ala Tyr 100 Ile Pro Leu Leu Val 115 117

<210> 1995 <211> 110 <212> PRT <213> Homo sapiens

Gln Glu Asp Gly Lys Val Tyr Ile Asn Met Pro Gly Arg Gly 100 105 110

<210> 1996
<211> 328
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1) ... (328)
<223> Xaa = any amino acid or nothing

<400> 1996 Leu Gln Gly Asp Thr Trp His Leu Ser Phe Leu Ser His Phe Ser Arg 10 Leu His Gly Gly Val Pro Gly Arg Gly Leu Leu Glu Gly Asn Leu Leu 25 20 Gln Pro Gln Ala Pro Gly His Asp Met Thr Ser Ile Pro Phe Pro Gly Asp Arg Leu Leu Gln Val Asp Gly Val Ile Leu Cys Gly Leu Thr His 50 55 Lys Gln Ala Val Gln Cys Leu Lys Gly Pro Gly Gln Val Ala Arg Leu 65 70 75 80 Val Leu Glu Arg Arg Val Pro Arg Ser Thr Gln Gln Cys Pro Ser Ala 85 90 Asn Asp Ser Met Gly Asp Glu Arg Thr Ala Val Ser Leu Val Thr Ala 105 110 100 Leu Pro Gly Arg Pro Ser Ser Cys Val Ser Val Thr Asp Gly Pro Lys 120 115 Phe Xaa Ser Ser Asn Xaa Lys Arg Ile Ala Asn Gly Leu Gly Phe Ser 130 135 140 Phe Val Gln Met Glu Lys Glu Ser Cys Ser His Leu Lys Ser Asp Leu 145 150 155 160 Val Arg Ile Lys Arg Leu Phe Pro Gly His Pro Ala Glu Glu Asn Gly 165 170 Ala Ile Ala Ala Gly Asp Ile Ile Leu Gly Arg Glu Trp Glu Gly Pro 180 185 190 Arg Lys Ala Ser Ser Ser Arg Cys Arg Gly Ser Trp Ala Met Gln Leu 195 200 205 200 195 Ser Val Gln Ala Gly Pro Ser Phe Ala Ser Tyr Tyr Pro Ala Ala Val 210 215 220 Glu Val Leu His Leu Leu Arg Gly Ala Pro Gln Glu Val Thr Leu Leu 225 230 235 240 Leu Cys Arg Pro Pro Pro Gly Ala Leu Pro Glu Leu Glu Gln Glu Trp 245 250 255 Gln Thr Pro Glu Leu Ser Ala Asp Lys Glu Phe Thr Arg Ala Thr Cys 260 265 270 Thr Asp Ser Cys Thr Ser Pro Ile Leu Gly Ser Arg Gly Gln Leu Gly 275 280 Gly Thr Val Pro Pro Gln Met Gln Gly Lys Ala Trp Gly Leu Arg Pro 290 295 300 Glu Ser Ser Gln Lys Ala Ile Arg Glu Gly Thr Met Gly Ala Lys Thr 305 310 315 Glu Arg Asp Leu Gly Pro Val Pro 325

<210> 1997 <211> 236

<212> PRT

## <213> Homo sapiens

<400> 1997 Pro Arg Val Arg Gly Asp Trp Pro Leu Glu Lys Lys Lys Ser Asn Ser 10 Asn Ile His Pro Ile Phe Ser Trp Cys Gly Ser Thr Asp Ser Lys Asp Ile Val Met Pro Thr Tyr Asp Leu Thr Asp Ser Val Leu Glu Thr Met 35 40 Gly Arg Val Ser Leu Asp Met Met Ser Val Gln Ala Asn Thr Gly Pro 55 Pro Trp Glu Ser Lys Asn Ser Thr Ala Val Trp Arg Gly Arg Asp Ser Arg Lys Glu Arg Leu Glu Leu Val Lys Leu Ser Arg Lys His Pro Glu 90 Leu Ile Asp Ala Ala Phe Thr Asn Phe Phe Phe Lys His Asp Glu 100 105 Asn Leu Tyr Gly Pro Ile Val Lys His Ile Ser Phe Phe Asp Phe Phe 120 115 125 Lys His Lys Tyr Gln Ile Asn Ile Asp Gly Thr Val Ala Ala Tyr Arg 135 140 Leu Pro Tyr Leu Leu Val Gly Asp Ser Val Val Leu Lys Gln Asp Ser 150 155 Ile Tyr Tyr Glu His Phe Tyr Asn Glu Leu Gln Pro Trp Lys His Tyr 165 170 Ile Pro Val Lys Ser Asn Leu Ser Asp Leu Leu Glu Lys Leu Lys Trp 180 185 Ala Lys Asp His Asp Glu Glu Ala Lys Lys Ile Ala Lys Ala Gly Gln 200 195 205 Glu Phe Ala Arg Asn Asn Leu Met Gly Asp Asp Ile Phe Cys Tyr Tyr 215 220 Phe Gln Thr Phe Pro Arg Asn Met Pro Ile Tyr Lys 230

<210> 1998 <211> 397 <212> PRT <213> Homo sapiens

<400> 1998 Ala Gly Met Leu Pro Ala Val Gly Ser Ala Asp Glu Glu Glu Asp Pro 5 10 Ala Glu Glu Asp Cys Pro Glu Leu Val Pro Met Glu Thr Thr Gln Ser 20 25 Glu Glu Glu Lys Ser Gly Leu Gly Ala Lys Ile Pro Val Thr Ile 40 Ile Thr Gly Tyr Leu Gly Ala Gly Lys Thr Thr Leu Leu Asn Tyr Ile 55 60 Leu Thr Glu Gln His Ser Lys Arg Val Ala Val Ile Leu Asn Glu Phe Gly Glu Gly Ser Ala Leu Glu Lys Ser Leu Ala Val Ser Gln Gly Gly 85 90 Glu Leu Tyr Glu Glu Trp Leu Glu Leu Arg Asn Gly Cys Leu Cys Cys 100 105 110 Ser Val Lys Asp Asn Gly Leu Arg Ala Ile Glu Asn Leu Met Gln Lys 120 115 125 Lys Gly Lys Phe Asp Tyr Ile Leu Leu Glu Thr Thr Gly Leu Ala Asp 135 140 Pro Gly Ala Val Ala Ser Met Phe Trp Val Asp Ala Glu Leu Gly Ser 155

Asp Ile Tyr Leu Asp Gly Ile Ile Thr Ile Val Asp Ser Lys Tyr Gly 175 170 Leu Lys His Leu Ala Glu Glu Lys Pro Asp Gly Leu Ile Asn Glu Ala 180 185 Thr Arg Gln Val Ala Leu Ala Asp Ala Ile Leu Ile Asn Lys Thr Asp 200 205 195 Leu Val Pro Glu Glu Asp Val Lys Lys Leu Arg Thr Thr Ile Arg Ser 220 215 Ile Asn Gly Leu Gly Gln Ile Leu Glu Thr Gln Arg Ser Arg Val Asp 230 235 Leu Ser Asn Val Leu Asp Leu His Ala Phe Asp Ser Leu Ser Gly Ile 255 245 250 Ser Leu Gln Lys Lys Leu Gln His Val Pro Gly Thr Gln Pro His Leu 260 265 Asp Gln Ser Ile Val Thr Ile Thr Phe Asp Val Pro Gly Asn Ala Lys 285 275 280 Glu Glu His Leu Asn Met Phe Ile Gln Asn Leu Leu Trp Glu Lys Asn 300 295 Val Arg Asn Lys Asp Asn His Cys Met Glu Val Ile Arg Leu Lys Gly 310 315 Leu Val Ser Ile Lys Asp Lys Ser Gln Gln Val Ile Val Gln Gly Val 325 330 335 His Glu Leu Tyr Asp Leu Glu Glu Thr Pro Val Ser Trp Lys Asp Asp 340 345 350 Thr Glu Arg Thr Asn Arg Leu Val Leu Leu Gly Arg Asn Leu Asp Lys 360 365 Asp Ile Leu Lys Gln Leu Phe Ile Ala Thr Val Thr Glu Thr Glu Lys 375 Gln Trp Thr Thr His Phe Lys Glu Asp Gln Val Cys Thr 390 395 397

<210> 1999

<211> 109

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(109)

<223> Xaa = any amino acid or nothing

<400> 1999

Asp Gly Val Ser Leu Leu Leu Pro Lys Leu Gly Val Gln Trp Ala Gln Tyr Trp Ala His Trp Gln Pro Pro Leu Pro Gly Phe Lys Arg Phe Ser 20 25 Cys Leu Ser Leu Arg Ser Ser Trp Asp Xaa Lys Cys Ala Pro Pro His 35 40 45 Pro Ala Phe Val Phe Leu Val Glu Met Gly Phe His Arg Val Gly Gln 55 60 Ala Gly Leu Glu Leu Arg Thr Ser Gly Asp Pro Pro Ala Ser Ala Ser 75 65 70 Gln Ser Ala Gly Ile Thr Gly Val Ser His Leu Ala Xaa Pro Thr Ser 85 90 Met Pro Leu Leu Pro Phe Gln Arg Leu Cys Val Tyr Ile 100 105

<210> 2000

<211> 145

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(145)

<223> Xaa = any amino acid or nothing

<400> 2000

Phe Phe Phe Leu Arg Arg Ser Phe Ala Phe Val Ala Gln Ala Gly Val 1 5 10 15 Gln Trp Cys Asp Leu Gly Ser Pro Gln Pro Leu Pro Pro Gly Phe Lys 20 25 Xaa Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg His Ala 35 40 45 Pro Pro Pro Cys Pro Ser Xaa Phe Leu Tyr Phe Xaa Xaa Arg Gln Gly 55 60 Phe Thr Met Leu Ala Arg Leu Val Leu Asn Ser Xaa Pro His Asp Leu 70 75 Pro Thr Ser Pro Ser Gln Ser Ala Glu Ile Lys Gly Val Ser His Arg 85 90 Cys Pro Ala Ser Phe Tyr Leu Phe Leu Lys Tyr Tyr Leu Glu Ala Lys
100 105 110 Phe Cys Ala Xaa Gly Glu Cys Ala Pro Ser Ala Gly Val Gly Ala Gly 120 125 Tyr Lys Arg Gly His Lys Ser Cys Leu Leu Ile Asn Cys Val Val Gln 135 140 Ile 145

<210> 2001

<211> 309

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (309)

<223> Xaa = any amino acid or nothing

<400> 2001

Asp Ala Trp Gly Pro Glu Thr Arg Leu Ala Arg Ile Leu Asn Pro Asp Ser Phe Ile Glu Pro Arg Pro Gly Arg Leu Pro Glu Leu Glu Ala Thr . 20 25 . 30 Arg Pro His Met Glu Pro Lys Ala Ser Cys Pro Ala Ala Ala Pro Leu 40 Met Glu Arg Lys Phe His Val Leu Val Gly Val Thr Gly Ser Val Ala 55 60 Ala Leu Lys Leu Pro Leu Leu Val Ser Lys Leu Leu Asp Ile Pro Gly 70 75 Leu Glu Val Ala Val Val Thr Thr Glu Arg Ala Lys His Phe Tyr Ser 90 85 Pro Gln Asp Ile Pro Val Thr Leu Tyr Ser Asp Ala Asp Glu Trp Glu 100 105 110 Met Trp Lys Ser Arg Ser Asp Pro Val Leu His Ile Asp Leu Arg Arg 115 120 125 Trp Ala Asp Leu Leu Val Ala Pro Leu Asp Ala Asn Thr Leu Gly 130 135 140 Lys Val Ala Ser Gly Ile Cys Asp Asn Leu Leu Thr Cys Val Met Arg 145 150 155 160 Ala Trp Asp Arg Ser Lys Pro Leu Leu Phe Cys Pro Ala Met Asn Thr

Ala Met Trp Glu His Pro Ile Thr Ala Gln Gln Val Asp Gln Leu Lys 185 180 Ala Phe Gly Tyr Val Glu Ile Pro Cys Val Ala Lys Lys Leu Val Cys 200 205 195 Gly Asp Glu Gly Leu Gly Ala Met Ala Glu Val Gly Thr Ile Val Asp 220 210 215 Lys Val Lys Glu Val Leu Phe Gln His Ser Gly Phe Gln Gln Ser Xaa 225 230 235 240 230 Pro Gly Ile Ser Val Met Gly Val Pro Leu Tyr Ser Glu Trp Val Gln 245 250 255 Ala Lys Ser Val Lys Met Asp Val Gly Lys Ile Gly Gly Tyr Pro His 260 265 Leu Leu Asn Gly Gly Pro Ala Leu Ser Leu Pro Arg Gly Gln Ala Cys 275 280 285 Ser Arg Leu Asn Trp Thr Glu Gly Pro Gly Leu Ser Phe Phe Gln Pro 290 295 300 Gly Glu Ala Ala Ala 305 309

<210> 2002 <211> 203 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(203) <223> Xaa = any amino acid or nothing

<400> 2002 Phe Arg Gly Arg Gln Thr Ser Arg Pro Ala Arg Gly Phe Ser Pro Trp 10 1 Arg Pro Pro Gly Thr Met Gln Glu Pro Ser Ser Gly Glu Cys Pro Ala 20 Ser Pro Xaa Leu Pro Cys Ala Ser Asn Arg Leu Ala Phe Gly Gly Leu 40 3.5 Ile Phe Pro Cys Ala Pro Leu Val Pro Tyr Pro Ala Pro Phe Ser Pro 50 55 60 Leu Leu Pro Ala Phe Ser Cys Ala Pro Arg Pro Arg Ala His Thr His 75 70 Ser Arg Thr His Pro Ser Ala Pro Leu Val Pro Lys Pro Ser Ser Arg 90 Ala Arg Gly Gln Ser Pro Ile Pro Ser Arg Ala Ser Ser Pro Ser Cys 100 105 110 Ser Trp Ala Gln Val Pro Gly Val Ala Leu Ala Arg Cys Ala Gly Val 120 115 Cys Lys Pro Gly Asp Ser Trp Arg Val Ala Ala Cys Ile Ser Gly Arg 135 140 Cys Cys Ser Arg Gly Arg Arg Gly Ser Gly Pro Arg Asn Pro Glu 145 150 155 160 Gln Ser Phe Arg Gly Ala Trp Gly Pro Ser Phe Trp Gly Ser Trp Lys 170 175 165 Ser Gln Arg Glu Leu Ser Ala Gly Gly Ala Gln Ala Trp Pro Leu Leu 180 185 Gly Ser Ala Gly Ser Gly Leu Arg Gly Glu Ala 203 195 200

<210> 2003 <211> 93 <212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(93)

<223> Xaa = any amino acid or nothing

<400> 2003 Phe Phe Phe Phe Ile Xaa Asp Gly Val Ser Leu Cys His Pro Gly Trp 10 Asn Ala Val Ala Arg Ser Trp Leu Thr Ala Thr Ser Ala Ser Arg Val 20 25 Gln Ala Val Ser Cys Phe Arg Leu Pro Ser Ser Trp Asp Tyr Arg His 40 45 Ala Thr Met Pro Gly Xaa Phe Phe Xaa Tyr Phe Xaa Xaa Arg Trp Gly 55 60 Phe Thr Ile Leu Ala Ile Leu Val Leu Asn Ser Xaa Pro Gln Val Ile 70 75 Cys Pro Pro Trp Pro Pro Lys Val Leu Thr Leu Gln Ala 85 90

<210> 2004

<211> 144

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (144)

<223> Xaa = any amino acid or nothing

<400> 2004

Arg Pro Gly Ile Pro Gly Arg Arg Phe Arg Arg Ser Trp Phe Cys Gln 10 Leu Pro Xaa Glu Pro Glu Pro Gly Leu Glu Ser Leu Ala Thr Pro Gly 25 Asp Ile Pro Ala Val Gly Leu Gly Ala Leu Gly Val Ile Pro Pro Val . 35 40 45 Arg Val Pro Gln Arg Pro Pro Thr Gln Arg Ser Gln Gly Arg Gly Trp 55 Asp Pro Glu Arg Asp Pro Gly Cys Arg Val Gln Val Ser Arg Gly Pro 70 75 Arg Phe Gly Glu Gln Lys Thr Pro Gly Leu Gln Gly Cys Leu Pro Pro 85 90 Pro Cys Leu Thr His Leu Ala Ala Ser Cys Val Val Trp Cys 100 105 Gly Arg Trp Lys Arg Asp Ser Ala Glu Cys Gln Cys Asp His Ser Cys 120 115 125 Ser Ala Val Ser Gln Gln Glu Asp Arg Cys Arg Ser Ser Ser Cys Ser 135 140

<210> 2005

<211> 65

<212> PRT

<213> Homo sapiens

<400> 2005

 Met
 Asn
 Asn
 Asn
 Thr
 Thr
 Cys
 Ile
 Gln
 Pro
 Ser
 Met
 Ile
 Ser
 Met

 1
 5
 10
 15

 Ala
 Leu
 Pro
 Ile
 Il

<210> 2006
<211> 57
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(57)
<223> Xaa = any amino acid or nothing

<210> 2007 <211> 114 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(114) <223> Xaa = any amino acid or nothing

<400> 2007 Met Ala Gly Met Lys Thr Ala Ser Gly Asp Tyr Ile Asp Ser Ser Trp 10 5 Glu Leu Arg Val Phe Val Gly Glu Glu Asp Pro Glu Ala Glu Ser Val 20 25 Thr Leu Arg Val Thr Gly Glu Ser His Ile Gly Gly Val Leu Leu Lys 40 45 Ile Val Glu Gln Ile Asn Arg Lys Gln Asp Trp Ser Asp His Ala Ile 55 60 Trp Trp Glu Gln Lys Arg Gln Trp Leu Leu Gln Thr His Trp Thr Leu 70 .75 Asp Lys Tyr Gly Ile Leu Ala Asp Ala Arg Leu Phe Phe Gly Pro Gln 90 85 His Arg Pro Val Ile Leu Arg Leu Pro Asn Arg Arg Ala Leu Arg Leu 105 Xaa * 113

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<210> 2008
    <211> 97
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
     <222> (1)...(97)
    <223> Xaa = any amino acid or nothing
    <400> 2008
Phe Phe Phe Lys Glu Thr Glu Ser His Ser Val Thr Gln Ala Gly
                 5
 1
                                    10
Val Gln Trp His Asp Leu Gly Ser Leu Gln Pro Pro Pro Pro Gly Phe
                                25
           20
Lys Arg Phe Ser Cys Leu Ser Leu Leu Ser Ser Trp Asp Tyr Arg Cys
                            40
Ala Pro Pro His Pro Ala Asn Phe Val Phe Leu Val Glu Thr Gly Phe
                        55
                                            60
His His Val Ala Gln Ala Gly Leu Lys Leu Leu Thr Leu Xaa Ser Ala
                   70
                                     75
Asn Leu Gly Leu Ser Thr Ser Leu Pro Ile Pro Leu Phe Ile Leu Leu
                                    90
Ser
97
    <210> 2009
    <211> 107
     <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(107)
    <223> Xaa = any amino acid or nothing
    <400> 2009
Arg Gly His Gly Gly Lys Ser Leu Thr Gly Gly Thr Pro Gly Asn Trp
Gly Asp Gly Leu Leu Val Ser Glu Asp Trp Ser His Leu Ile Phe Thr
                                25
                                                   30
           20
Xaa Asn Ser Leu Val Ser Pro Val Leu Gly Lys Trp Ser Pro Cys Leu
                            40
Gln Gly Pro Gly Leu Ser Ala Val His Thr Trp Pro Trp Leu Met Ala
   50
                        55
                                           60
Ala Cys Trp Ala Val His Val Lys Thr His Met Arg Pro Gly Leu Ala
                   70
                                       75
Val Leu Pro Arg Leu Val Leu Asn Ser Trp Ser Xaa Ala Ile Ile Leu
                85
                                   90
Leu Trp Pro Pro Lys Ala Leu Gly Leu Gln Ala
           100
    <210> 2010
     <211> 102
     <212> PRT
    <213> Homo sapiens
    <221> misc feature
    <222> (1)...(102)
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## <223> Xaa = any amino acid or nothing

<400> 2010 Ser Arg Val Asp Asp Phe Val Gly Glu Arg Arg Gly Gly Cys Asp Glu 10 Cys Leu Cys Gly His Arg Gly Leu Arg Ala Val Pro Leu Gly His Pro 20 25 Gly His Leu Cys Leu Gln Pro Pro Gly Gly Pro Ala Xaa Phe Leu Asp 40 45 Tyr Cys Arg Gly Cys Cys Pro His Pro Val Pro Gly Ser Thr Ala Gly 50 60 55 60 Ser Cys Pro Arg Gln Lys Lys Thr Thr Pro Gly Pro Thr Val Leu Cys 70 75 65 Val Cys Ser Phe Trp Ile Tyr Gln Arg Gly Glu Pro His His Arg Thr 85 90 Gly Ala Arg Trp Asn His 100 102

<210> 2011

<211> 107

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(107)

<223> Kaa = any amino acid or nothing

<400> 2011

Arg Gln Ser Cys Ser Ser Thr Gln Ala Lys Val Gln Trp Phe His Tyr 10 Gly Pro Leu Gln Ser Gln Pro Pro Gly Leu Lys Gln Ser Ser Gln Leu 20 25 Ser Leu Pro Asn Ser Arg Asp His Arg His Val Pro Pro Arg Leu Ala 35 40 45 Ile Phe Ser Phe Ala Glu Thr Gly Ser Pro Tyr Phe Ala Gln Ala Ser 55 60 Leu Glu Leu Leu Gly Ser Ser His Pro Pro Thr Ser Ala Ser Gln Ser 75 70 Ala Arg Ile Thr Gly Val Ser His Arg Ala Trp Pro Leu Lys Xaa Phe 85 Asn Leu Asn Gln Tyr Gln Thr Leu Thr Met Asn 100 105 107

<210> 2012

<211> 214

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(214)

<223> Xaa = any amino acid or nothing

<400> 2012

Glu Leu Asn Asn Gly Pro Phe Gln Met Pro Leu Cys Asn Gly Gly Asn

1 5 10 15

Leu Ala Val Thr Gly Ser Trp Ala Asp Arg Ser Pro Leu His Glu Ala

20 25 30

Ala Ser Gln Gly Arg Leu Leu Ala Leu Arg Thr Leu Leu Ser Gln Gly 40 Tyr Asn Val Asn Ala Val Thr Leu Asp His Val Thr Pro Leu His Glu . 55 60 Ala Cys Leu Gly Asp His Val Ala Cys Ala Arg Thr Leu Leu Glu Ala 70 75 Gly Ala Asn Val Asn Ala Ile Thr Ile Asp Gly Val Thr Pro Leu Phe 85 90 Asn Ala Cys Ser Gln Gly Ser Pro Ser Cys Ala Glu Leu Leu Glu 100 105 110 Tyr Gly Ala Gln Ala Gln Leu Glu Ser Cys Leu Pro Ser Pro Thr His 120 Glu Gly Ala Ser Lys Gly His His Glu Cys Leu Asp Ile Leu Ile Ser 130 135 140 Trp Gly Ile Asp Val Asp Gln Glu Ile Pro His Ser Gly Thr Pro Leu 150 155 145 Tyr Val Ala Cys Met Ala Gln Gln Phe His Cys Ile Trp Asn Leu Ile 165 170 Tyr Ala Gly Ala Gly Val Arg Lys Gly Lys Tyr Trp Asp Thr Pro Leu 185 190 180 Pro Gly Ala Gly His Gln Ser Thr Gln Lys Leu Glu Xaa Leu Phe Ala 195 200 205 Met Val Glu Ile Trp Gln 210

<210> 2013

<211> 124

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (124)

<223> Xaa = any amino acid or nothing

<400> 2013

Val Arg Asn Ser Xaa Ser Phe Ala His Cys Ala Ser Val Tyr Lys His 5 10 His Tyr Met Asp Gly Gln Thr Pro Cys Leu Phe Val Ser Ser Lys Ala 20 25 Asp Leu Pro Glu Gly Val Ala Val Ser Gly Pro Ser Pro Ala Glu Phe 35 40 Cys Arg Lys His Arg Leu Pro Ala Pro Val Pro Phe Ser Cys Ala Gly 55 60 Pro Ala Glu Pro Ser Thr Thr Ile Phe Thr Gln Leu Ala Thr Met Ala 70 75 Ala Phe Pro His Leu Val His Ala Glu Leu His Pro Ser Ser Phe Trp 90 - 85 Leu Arg Gly Leu Leu Gly Val Val Gly Ala Ala Val Ala Val Leu 100 105 Ser Phe Ser Leu Tyr Arg Val Leu Val Lys Ser Gln 120

<210> 2014

<211> 183

<212> PRT

<213> Homo sapiens

<400> 2014

Leu Ser Phe Ile Glu Val Leu Ser Met Glu Gln Val Asn Lys Thr Val 5 10 Val Arg Glu Phe Val Val Leu Gly Phe Ser Ser Leu Ala Arg Leu Gln 25 20 Gln Leu Leu Phe Val Ile Phe Leu Leu Leu Tyr Leu Phe Thr Leu Gly 40 35 Thr Asn Ala Ile Ile Ile Ser Thr Ile Val Leu Asp Arg Ala Leu His 55 60 Thr Pro Met Tyr Phe Phe Leu Ala Ile Leu Ser Cys Ser Glu Ile Cys 65 70 75 80 Tyr Thr Phe Val Ile Val Pro Lys Met Leu Val Asp Leu Leu Ser Gln 90 85 Lys Lys Thr Ile Ser Phe Leu Gly Cys Ala Ile Gln Met Phe Ser Phe 100 105 Leu Phe Phe Gly Ser Ser His Ser Phe Leu Leu Ala Ala Met Gly Tyr 115 120 125 Asp Arg Tyr Met Ala Ile Cys Asn Pro Leu Arg Tyr Ser Val Leu Met 135 140 Gly His Gly Val Cys Met Gly Leu Met Ala Ala Trp Ala Cys Gly 150 155 Phe Thr Val Ser Leu Val Thr Thr Ser Leu Val Phe His Leu Pro Phe 170 165 His Ser Ser Asn Gln His Glu 180 183

<210> 2015 <211> 240 <212> PRT <213> Homo sapiens

<221> misc_feature
<222> (1)...(240)
<223> Xaa = any amino acid or nothing

<400> 2015 Gln Gln Tyr His Asn Thr Gly Ser Ala Gly His His Ala His Cys Gln 10 5 Val Gly His Ser Pro His Val His Tyr Pro Ser Gly Cys Gly Pro Leu 20 25 30 Xaa Ile Gln Arg Gly Leu Pro Ser Phe Asn Ser Leu Glu Gly His Ser 45 35 40 Leu Lys Asp Ser Gly His Glu Glu Ser Val Gln Leu Asp Ser Glu His 55 60 Asp Val Gln Arg Ser Leu Tyr Cys Asp Thr Ala Val Asn Asp Val Leu 75 70 Asn Thr Ser Val Thr Ser Met Gly Ser Gln Met Pro Asp His Asp Gln 85 90 Asn Glu Gly Phe His Cys Arg Glu Glu Cys Arg Ile Leu Gly His Ser 100 105 110 Asp Arg Cys Trp Met Pro Arg Asn Pro Met Pro Ile Arg Ser Lys Ser 115 120 125 125 120 115 Pro Glu His Val Arg Asn Ile Ile Ala Leu Ser Ile Glu Ala Thr Ala 140 135 Ala Asp Val Glu Ala Tyr Asp Asp Cys Gly Pro Thr Lys Arg Thr Phe 155 150 Ala Thr Phe Gly Lys Asp Val Ser Asp His Pro Ala Glu Glu Arg Pro 165 170 Thr Leu Lys Gly Lys Arg Thr Val Asp Val Thr Ile Cys Ser Pro Lys 180 185 Val Asn Ser Val Ile Arg Glu Ala Gly Asn Gly Cys Glu Ala Ile Ser 200

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Pro Val Thr Ser Pro Leu His Leu Lys Ser Ser Leu Pro Thr Lys Pro
                    215
                                          220
Ser Val Ser Tyr Glu Ile Val Asp Pro Gly Ile Thr Ala Arg Arg Cys
225
                                       235
                   230
    <210> 2016
    <211> 53
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
     <222> (1)...(53)
    <223> Xaa = any amino acid or nothing
    <400> 2016
Ile Met Leu Leu Ser Thr Ser Ser Xaa Val Tyr Phe Gln Ser Ser Thr
                                    10
Lys Asp Ser His Phe Phe Leu Phe Asp Phe Gln Lys Thr Gly Pro Pro
        20
Leu Val Gly Pro Lys Ala Gln Leu Ser Gly Leu Gln Leu Gln Pro Cys
    35
                            40
Leu Tyr Lys Arg Arg
    50
               53
    <210> 2017
    <211> 39
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(39)
   <223> Xaa = any amino acid or nothing
    <400> 2017
Asp Leu Thr Asn Ser His Phe Phe Leu Phe Asp Phe Gln Lys Thr Gly
                                    10
Pro Pro Leu Gly Gly Pro Lys Ala Gln Phe Ser Ser Leu Gln Leu Gln
           20
Pro Cys Val Tyr Xaa Arg Arg
        35
     <210> 2018
     <211> 206
     <212> PRT
    <213> Homo sapiens'
    <221> misc_feature
     <222> (1) ... (206)
     <223> Xaa = any amino acid or nothing
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15

Asn Ile Lys Ser Asn Asp Arg Trp Val Gln Ile Lys Thr Ala Tyr Lys

<400> 2018

Tyr Phe Phe Xaa Lys Asn Gly Asp Asn Tyr Asn Trp Val Phe Arg Ala 20 25 Leu Pro Thr Thr Phe Ala Asp Ile Glu Asn Leu Lys Tyr Leu Leu Phe 40 45 35 Thr Arg Asp Ala Ser Gln Pro Phe Tyr Leu Gly His Thr Val Ile Phe 60 50 55 Gly Asp Leu Glu Tyr Val Thr Val Glu Gly Gly Ile Val Leu Ser Arg 70 75 Glu Leu Met Lys Arg Leu Asn Arg Leu Leu Asp Asn Ser Glu Thr Cys 85 90 Ala Asp Gln Ser Val Ile Trp Lys Leu Ser Glu Asp Lys Gln Leu Ala 100 105 110 Ile Cys Leu Lys Tyr Ala Gly Val His Ala Glu Asn Ala Glu Asp Tyr 120 125 115 Glu Gly Arg Asp Val Phe Asn Thr Lys Pro Ile Ala Gln Leu Ile Glu 130 135 Glu Ala Leu Ser Asn Asn Pro Gln Gln Val Val Glu Gly Cys Cys Ser 150 155 Asp Met Ala Ile Thr Phe Asn Gly Leu Thr Pro Gln Lys Met Glu Val 170 175 165 Met Met Tyr Gly Leu Tyr Arg Leu Arg Ala Phe Gly His Tyr Phe Asn 180 185 190 Asp Thr Leu Val Phe Leu Pro Pro Val Gly Ser Glu Asn Asp

<210> 2019 <211> 109 <212> PRT <213> Homo sapiens

<221> misc_feature
<222> (1)...(109)
<223> Xaa = any amino acid or nothing

<400> 2019 Pro Gly Arg Pro Thr Arg Pro Pro Leu Leu Thr Leu Leu Ala His Val 10 15 5 Ser Pro Glu Pro Ala Gly Pro Ser Cys Asp Ser Leu Ala Gln Pro Gly 25 Ala Ser Gly Val Xaa Val Gln His Asp Ser His Pro Pro Leu Leu Cys 35 40 Gly Ser Gln Cys Leu Ser Glu Pro Val Pro Gly Ser His Gly Pro Pro 55 60 Arg Gly Cys Gln His Glu Ala Ala Pro Cys Pro Arg Gly Pro Gly Ser 75 70 Asp Gly Leu His His Ala Ser Ala Ala Cys Ala Ser Leu Pro Pro Ser 85 90 Pro Ile Leu Pro Val Leu Leu Pro Glu Leu Gly Pro Leu 105

<210> 2020 <211> 181 <212> PRT <213> Homo sapiens <221> misc feature

<222> (1)...(181) <223> Xaa = any amino acid or nothing

<400> 2020 Asp Ala Trp Gly Asn Arg Cys Ala Val Gly Ala Ala Pro Arg Leu Ile 10 His Leu His Leu Cys Cys Thr Pro Ala Asp Pro Ser Arg Lys Pro Asp Glu Leu Xaa Asn Met Asn Gly Arg Val Asp Tyr Leu Val Thr Glu Glu Glu Ile Asn Leu Thr Arg Gly Pro Ser Gly Leu Gly Phe Asn Ile Val 55 Gly Gly Thr Asp Gln Gln Tyr Val Ser Asn Asp Ser Gly Ile Tyr Val Ser Arg Ile Lys Glu Asn Gly Ala Ala Ala Leu Asp Gly Arg Leu Gln 90 85 Glu Gly Asp Lys Ile Leu Ser Val Asn Gly Gln Asp Leu Lys Asn Leu 105 110 Leu His Gln Asp Ala Val Asp Leu Phe Arg Asn Ala Gly Tyr Ala Val 120 125 Ser Leu Arg Val Gln His Arg Leu Gln Val Gln Asn Gly Pro Ile Gly 135 140 His Arg Gly Glu Gly Asp Pro Ser Gly Ile Pro Ile Phe Met Val Leu 155 150 Val Pro Val Phe Ala Leu Thr Met Val Ala Ala Trp Ala Phe Met Arg 165 170 Tyr Arg Gln Gln Leu 180 181

<210> 2021 <211> 91 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(91) <223> Xaa = any amino acid or nothing

<210> 2022 <211> 80 <212> PRT <213> Homo sapiens

<400> 2022
Ile Ile Tyr Phe Ser Tyr Asn Ile Phe Leu Lys Ile Thr Glu Leu Leu
1 5 10 15

Asn Asp Val Glu Arg Leu Lys Gln Ala Leu Asn Gly Leu Ser Gln Leu 20 25 30

Thr Tyr Thr Ser Gly Asn Pro Thr Lys Arg Gln Ser Gln Leu Ile Asp 35 40 45

Thr Leu Gln His Gln Val Lys Ser Leu Glu Gln Gln Leu Ala Val Ser 50 55 60

Asn Gln Ala His Gly Ala Leu Gln Glu Tyr Val Leu Ala Pro Cys Ser 65 70 75 80

<210> 2023 <211> 42 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (42)

<223> Xaa = any amino acid or nothing

<210> 2024 <211> 983 <212> PRT <213> Homo sapiens

<400> 2024 Leu Thr Glu Asp Gln Pro Phe Asp Ile Leu Gln Lys Ser Leu Gln Glu 10 5 Ala Asn Ile Thr Glu Gln Thr Leu Ala Glu Glu Ala Tyr Leu Asp Ala 20 25 30 Ser Ile Gly Ser Ser Gln Gln Phe Ala Gln Ala Gln Leu His Pro Ser 40 45 Ser Ser Ala Ser Phe Thr Gln Ala Ser Asn Val Ser Asn Tyr Ser Gly 50 55 . Gln Thr Leu Gln Pro Ile Gly Val Thr His Val Pro Val Gly Ala Ser 75 70 Phe Ala Ser Asn Thr Val Gly Val Gln His Gly Phe Met Gln His Val 90 85 Gly Ile Ser Val Pro Ser Gln His Leu Ser Asn Ser Ser Gln Ile Ser 105 110 100 Gly Ser Gly Gln Ile Gln Leu Ile Gly Ser Phe Gly Asn His Pro Ser 120 125 115 Met Met Thr Ile Asn Asn Leu Asp Gly Ser Gln Ile Ile Leu Lys Gly 135 140 Ser Gly Gln Gln Ala Pro Ser Asn Val Ser Gly Gly Leu Leu Val His 150 155 Arg Gln Thr Pro Asn Gly Asn Ser Leu Phe Gly Asn Ser Ser Ser 170 175 165 Pro Val Ala Gln Pro Val Thr Val Pro Phe Asn Ser Thr Asn Phe Gln

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Thr Ser Leu Pro Val His Asn Ile Ile Ile Gln Arg Gly Leu Ala Pro
                          200
Asn Ser Asn Lys Val Pro Ile Asn Ile Gln Pro Lys Pro Ile Gln Met
                                         220
                      215
Gly Gln Gln Asn Thr Tyr Asn Val Asn Asn Leu Gly Ile Gln Gln His
                  230
                                     235
His Val Gln Gln Gly Ile Ser Phe Ala Ser Ala Ser Ser Pro Gln Gly
                                  250
              245
Ser Val Val Gly Pro His Met Ser Val Asn Ile Val Asn Gln Gln Asn
                    265
           260
Thr Arg Lys Pro Val Thr Ser Gln Ala Val Ser Ser Thr Gly Gly Ser
                          280
Ile Val Ile His Ser Pro Met Gly Gln Pro His Ala Pro Gln Ser Gln
                                          300
                     295
Phe Leu Ile Pro Thr Ser Leu Ser Val Ser Ser Asn Ser Val His His
                  310
                                      315
Val Gln Thr Ile Asn Gly Gln Leu Leu Gln Thr Gln Pro Ser Gln Leu
              325
                                  330
Ile Ser Gly Gln Val Ala Ser Glu His Val Met Leu Asn Arg Asn Ser
          340
                             345
Ser Asn Met Leu Arg Thr Asn Gln Pro Tyr Thr Gly Pro Met Leu Asn
       355
                          360
                                             365
Asn Gln Asn Thr Ala Val His Leu Val Ser Gly Gln Thr Phe Ala Ala
                     375
                                         380
Ser Gly Ser Pro Val Ile Ala Asn His Ala Ser Pro Gln Leu Val Gly
                 390
                                      395
Gly Gln Met Pro Leu Gln Gln Ala Ser Pro Thr Val Leu His Leu Ser
             405
                                 410
Pro Gly Gln Ser Ser Val Ser Gln Gly Arg Pro Gly Phe Ala Thr Met
                              425
                                                430
Pro Ser Val Thr Ser Met Ser Gly Pro Ser Arg Phe Pro Ala Val Ser
                          440
                                             445
Ser Ala Ser Thr Ala His Pro Ser Leu Gly Ser Ala Val Gln Ser Gly
                      455
                                         460
Ser Ser Gly Ser Asn Phe Thr Gly Asp Gln Leu Thr Gln Pro Asn Arg
                                    475 480
               470
Thr Pro Val Pro Val Ser Val Ser His Arg Leu Pro Val Ser Ser Ser
               485
                                  490
Lys Ser Thr Ser Thr Phe Ser Asn Thr Pro Gly Thr Gly Thr Gln Gln
                             505
Gln Phe Phe Cys Gln Ala Gln Lys Lys Cys Leu Asn Gln Thr Ser Pro
                          520
                                             525
Ile Ser Ala Pro Lys Thr Thr Asp Gly Leu Arg Gln Ala Gln Ile Pro
                      535
                                         540
Gly Leu Leu Ser Thr Thr Leu Pro Gly Gln Asp Ser Gly Ser Lys Val
                                     555
                  550
Ile Ser Ala Ser Leu Gly Thr Ala Gln Pro Gln Gln Glu Lys Val Val
                                 570
             565
Gly Ser Ser Pro Gly His Pro Ala Val Gln Val Glu Ser His Ser Gly
           580
                              585
Gly Gln Lys Arg Pro Ala Ala Lys Gln Leu Thr Lys Gly Ala Phe Ile
                          600
Leu Gln Gln Leu Gln Arg Asp Gln Ala His Thr Val Thr Pro Asp Lys
                      615
                                         620
Ser His Phe Arg Ser Leu Ser Asp Ala Val Gln Arg Leu Leu Ser Tyr
                  630
                                     635
His Val Cys Gln Gly Ser Met Pro Thr Glu Glu Asp Leu Arg Lys Val
                                 650
              645
Asp Asn Glu Phe Glu Thr Val Ala Thr Gln Leu Leu Lys Arg Thr Gln
                                                  670
         660
                             665
Ala Met Leu Asn Lys Tyr Arg Cys Leu Leu Leu Glu Asp Ala Met Arg
                          680
                                            685
Ile Asn Pro Pro Ala Glu Met Val Met Ile Asp Arg Met Phe Asn Gln
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Glu Glu Arg Ala Ser Leu Ser Arg Asp Lys Arg Leu Ala Leu Val Asp 710 715 Pro Glu Gly Phe Gln Ala Asp Phe Cys Cys Ser Phe Lys Leu Asp Lys 730 725 Ala Ala His Glu Thr Gln Phe Gly Arg Ser Asp Gln His Gly Ser Lys 750 745 Ala Ser Ser Ser Leu Gln Pro Pro Ala Lys Ala Gln Gly Arg Asp Arg 760 765 755 Ala Lys Thr Gly Val Thr Glu Pro Met Asn His Asp Gln Phe His Leu 775 780 Val Pro Asn His Ile Val Val Ser Ala Glu Gly Asn Ile Ser Lys Lys 790 795 Thr Glu Cys Leu Gly Arg Ala Leu Lys Phe Asp Lys Val Gly Leu Val 805 810 Gln Tyr Gln Ser Thr Ser Glu Glu Lys Ala Ser Arg Arg Glu Pro Leu 825 820 Lys Ala Ser Gln Cys Ser Pro Gly Pro Glu Gly His Arg Lys Thr Ser 835 840 845 Ser Arg Ser Asp His Gly Thr Glu Ser Lys Leu Ser Ser Ile Leu Ala 855 860 Asp Ser His Leu Glu Met Thr Cys Asn Asn Ser Phe Gln Asp Lys Ser 865 870 870 875 886 Leu Arg Asn Ser Pro Lys Asn Glu Val Leu His Thr Asp Ile Met Lys 890 Gly Ser Gly Glu Pro Gln Pro Asp Leu Gln Leu Thr Lys Ser Leu Glu 905 900 Thr Thr Phe Lys Asn Ile Leu Glu Leu Lys Lys Ala Gly Arg Gln Pro 925 915 920 Gln Ser Asp Pro Thr Val Ser Gly Ser Val Glu Leu Asp Phe Pro Asn 940 935 Phe Ser Pro Met Ala Ser Gln Glu Asn Cys Leu Glu Lys Phe Ile Pro 950 955 Asp His Ser Glu Gly Val Val Glu Thr Asp Ser Ile Leu Glu Ala Ala 970 965 Val Asn Ser Ile Leu Glu Cys 980 983

<210> 2025 <211> 427 <212> PRT <213> Homo sapiens

<400> 2025 Leu Lys Lys Met Glu Pro Phe Ser Cys Asp Thr Phe Val Ala Leu Pro 1 10 Pro Ala Thr Val Asp Asn Arg Ile Ile Phe Gly Lys Asn Ser Asp Arg 20 25 Leu Tyr Asp Glu Val Gln Glu Val Val Tyr Phe Pro Ala Val Val His 40 Asp Asn Leu Gly Glu Arg Leu Lys Cys Thr Tyr Ile Glu Ile Asp Gln 55 60 Val Pro Glu Thr Tyr Ala Val Val Leu Ser Arg Pro Ala Trp Leu Trp 70 75 Gly Ala Glu Met Gly Ala Asn Glu His Gly Val Cys Ile Gly Asn Glu 85 90 Ala Val Trp Gly Arg Glu Glu Val Cys Asp Glu Glu Ala Leu Leu Gly 100 105 Met Asp Leu Val Arg Leu Gly Leu Glu Arg Ala Asp Thr Ala Glu Lys 115 120 125 Ala Leu Asn Val Ile Val Asp Leu Leu Glu Lys Tyr Gly Gln Gly Gly 135 140

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Asn Cys Thr Glu Gly Arg Met Val Phe Ser Tyr His Asn Ser Phe Leu
                  150
                                    155
Ile Ala Asp Arg Asn Glu Ala Trp Ile Leu Glu Thr Ala Gly Lys Tyr
                                 170
                                                     175
              165
Trp Ala Ala Glu Lys Val Gln Glu Gly Val Arg Asn Ile Ser Asn Gln
          180
                             185
Leu Ser Ile Thr Thr Lys Ile Ala Arg Glu His Pro Asp Met Arg Asn
                                            205
       195
                          200
Tyr Ala Lys Arg Lys Gly Trp Trp Asp Gly Lys Lys Glu Phe Asp Phe
                      215
                                         220
Ala Ala Ala Tyr Ser Tyr Leu Asp Thr Ala Lys Met Met Thr Ser Ser
         230
                           235
Gly Arg Tyr Cys Glu Gly Tyr Lys Leu Leu Asn Lys His Lys Gly Asn 245 250 255
Ile Thr Phe Glu Thr Met Met Glu Ile Leu Arg Asp Lys Pro Ser Gly
                                                 270
Ile Asn Met Glu Gly Glu Phe Leu Thr Thr Ala Ser Met Val Phe Ile
                          280
Leu Pro Gln Asp Ser Ser Leu Pro Cys Ile His Phe Phe Thr Gly Thr
                     295
                                         300
Pro Asp Pro Glu Arg Ser Val Phe Lys Pro Phe Ile Phe Val Pro His
                  310
                                     315
Ile Ser Gln Leu Leu Asp Thr Ser Ser Pro Thr Phe Glu Leu Glu Asp
                               330
             325
Leu Val Lys Lys Ser His Phe Lys Pro Asp Arg Arg His Pro Leu
                                                350
           340
                          345
Tyr Gln Lys His Gln Gln Ala Leu Glu Val Val Asn Asn Asn Glu Glu
                                   365
       355
                        360
Lys Ala Lys Ile Met Leu Asp Asn Met Arg Lys Leu Glu Lys Glu Leu
                    375
                                         380
Phe Arg Glu Met Glu Ser Ile Leu Gln Asn Lys His Leu Asp Val Glu
               390
                                    395
Lys Ile Val Asn Leu Phe Pro Gln Cys Thr Lys Asp Glu Ile Gln Ile
                                410
             405
Tyr Gln Ser Asn Leu Ser Val Lys Val Ser Ser
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<210> 2026
<211> 101
<212> PRT
<213> Homo sapiens
<221> misc_feature
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<222> (1)...(101)
<223> Xaa = any amino acid or nothing

<400> 2026 Phe Phe Leu Arg Arg Ser Leu Ala Leu Ser Pro Arg Pro Asp Cys 10 Gly Leu Gln Trp Arg Asn Leu Gly Ser Leu Gln Ala Pro Pro Pro Gly 20 25 Phe Thr Pro Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg 40 Arg Pro Pro Pro Arg Pro Ala Asn Phe Leu Tyr Phe Xaa Xaa Arg Arg 55 60 Gly Phe Thr Leu Leu Ala Arg Met Val Ser Ile Ser Xaa Pro His Asp 70 75 Pro Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His 90 Arg Ala Arg Pro Thr 100 101

<210> 2027 <211> 214 <212> PRT <213> Homo sapiens

<400> 2027 Phe Phe His Ser Val Asp Leu Leu Ala Leu Glu Gln Ser Lys Thr Phe 10 Tyr Lys Pro Asp Trp Phe Asp Ile Val Glu Ser Glu Val Lys Cys Cys 25 20 Lys Glu Ala Val Cys Val Ile Asp Met Ser Ser Phe Thr Glu Phe Glu 40 Ile Thr Ser Thr Gly Asp Gln Ala Leu Glu Val Leu Gln Tyr Leu Phe 55 60 Ser Asn Asp Leu Asp Val Pro Val Gly His Ile Val His Thr Gly Met 70 75 Leu Asn Glu Gly Gly Gly Tyr Glu Asn Asp Cys Ser Ile Ala Arg Leu 85 90 95 Asn Lys Arg Ser Phe Phe Met Ile Ser Pro Thr Asp Gln Gln Val His 100 105 Cys Trp Ala Trp Leu Lys Lys His Met Pro Lys Asp Ser Asn Leu Leu 115 120 125 Leu Glu Asp Val Thr Trp Lys Tyr Thr Ala Leu Asn Leu Ile Gly Pro 135 140 Arg Ala Val Asp Val Leu Ser Glu Leu Ser Tyr Ala Pro Met Thr Pro 150 155 Asp His Phe Pro Ser Leu Phe Cys Lys Glu Met Ser Val Gly Tyr Ala 170 175 165 Asn Gly Ile Arg Val Met Ser Met Thr His Thr Gly Glu Pro Gly Phe 180 185 190 Met Leu Tyr Ile Pro Ile Glu Tyr Arg Trp Gly Phe Thr Met Leu Ser 195 200 Thr Leu Val Ser Asn Ser 210

<210> 2028 <211> 114 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(114)

<223> Xaa = any amino acid or nothing

Pro Glu Asp Cys Leu Asp Glu Leu Cys Lys Ile Xaa Xaa Ser Pro Gln
100 105 110

Ser Pro
114

<210> 2029 <211> 153 <212> PRT <213> Homo sapiens

<400> 2029 Arg Glu Ser Gln Val Lys His Phe Lys Met Arg Lys Ile Asp Leu Cys 5 10 Leu Ser Ser Glu Gly Ser Glu Val Ile Leu Ala Thr Ser Ser Asp Glu 20 25 Lys His Pro Pro Glu Asn Ile Ile Asp Gly Asn Pro Glu Thr Phe Trp 40 Thr Thr Thr Gly Met Phe Pro Gln Glu Phe Ile Ile Cys Phe His Lys 55 60 His Val Arg Ile Glu Arg Leu Val Ile Gln Ser Tyr Phe Val Gln Thr 70 75 Leu Lys Ile Glu Lys Ser Thr Ser Lys Glu Pro Val Asp Phe Glu Gln 85 90 Trp Ile Glu Lys Asp Leu Val His Thr Glu Gly Gln Leu Gln Asn Glu 105 100 Glu Ile Val Ala His Asp Gly Ser Ala Thr Tyr Leu Arg Phe Ile Ile 120 125 Val Ser Ala Phe Asp His Phe Ala Ser Val His Ser Val Ser Ala Glu 130 135 Gly Thr Val Val Ser Asn Leu Ser Ser 150

<210> 2030 <211> 149 <212> PRT <213> Homo sapiens

<400> 2030 Glu Ile Leu Ala Val Leu Lys Leu Ala Cys Gly Asp Ile Ser Leu Asn 10 Ala Leu Ala Leu Met Val Ala Thr Ala Val Leu Thr Leu Ala Pro Leu 20 25 Leu Leu Ile Cys Leu Ser Tyr Leu Phe Ile Leu Ser Ala Ile Leu Arg 40 Val Pro Ser Ala Ala Gly Arg Cys Lys Ala Phe Ser Thr Cys Ser Ala 55 60 His Arg Thr Val Val Val Phe Tyr Gly Thr Ile Ser Phe Met Tyr 70 75 Phe Lys Pro Lys Ala Lys Asp Pro Asn Val Asp Lys Thr Val Ala Leu 90 Phe Tyr Gly Val Val Thr Pro Ser Leu Asn Pro Ile Ile Tyr Ser Leu 105 100 Arg Asn Ala Glu Val Lys Ala Ala Val Leu Thr Leu Leu Arg Gly Gly 125 115 120 Leu Leu Ser Arg Lys Ala Ser His Cys Tyr Cys Cys Pro Leu Pro Leu 140 Ser Ala Gly Ile Gly

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<210> 2031
    <211> 79
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(79)
    <223> Xaa = any amino acid or nothing
    <400> 2031
Val Pro Asp Asn Gly Asp Val Thr Lys Leu Pro Val Cys Ser Thr Leu
                                   10
1
               5
Val Glu Glu Thr Ser Leu Thr Val Ser Glu Ala Met Glu Gln Ser Ile
                                                  30
                               25
Lys Asn Glu Ser Pro Leu Pro Gly Thr Leu Ala His Thr Cys Asn Thr
     35
                           40
Ser Thr Leu Gly Gly Arg Gly Arg Trp Ile Thr Xaa Gly Arg Glu Phe
                       55
Asp Thr Ser Met Ala Asn Met Val Lys Pro Cys Leu Tyr Arg Lys
65
                    70
    <210> 2032
    <211> 76
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1) ... (76)
     <223> Xaa = any amino acid or nothing
     <400> 2032
Phe Phe Phe Glu Thr Glu Ser Tyr Ser Ile Thr Gln Ala Gly Val Gln
 1
                5
Trp Pro Asn Leu Ser Ser Leu Lys Thr Leu Pro Pro Gly Phe Lys Xaa
      20
                             25
Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp Tyr Arg Cys Leu Pro 35 40 45
Pro Cys Pro Ala Asn Phe Cys Ile Phe Ser Arg Asn Gly Val Leu Pro
               55
Cys Trp Pro Gly Trp Ser Arg Thr Pro Asp Leu Ser
                    70
 65
     <210> 2033
     <211> 106
     <212> PRT
     <213> Homo sapiens
     <221> misc_feature
     <222> (1) ... (106)
     <223> Xaa = any amino acid or nothing
    <400> 2033
Cys Pro Ser Val Ser Gly Leu Ile Lys Ser Asp Leu Arg Arg His Asn
                                    10
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<210> 2034 <211> 64 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(64)

<223> Xaa = any amino acid or nothing

<210> 2035 <211> 60 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(60) <223> Xaa = any amino acid or nothing

<210> 2036 <211> 143 <212> PRT

## <213> Homo sapiens

<400> 2036 Gly Gly Glu Ala Ala Ala Arg Ala Ala Lys Leu Ser Ser Pro Arg Pro 10 His Arg Val Gly Arg Arg Glu Arg Gly Val Gly Met Ser Ala Phe 30 20 Ser Glu Ala Ala Leu Glu Lys Lys Leu Ser Glu Leu Ser Asn Ser Gln 40 35 Gln Ser Val Gln Thr Leu Ser Leu Trp Leu Ile His His Arg Lys His 60 50 55 Ser Arg Pro Ile Val Thr Val Trp Glu Arg Glu Leu Arg Lys Ala Lys 70 75 Pro Asn Arg Lys Leu Thr Phe Leu Tyr Leu Ala Asn Asp Val Ile Gln Asm Ser Lys Arg Lys Gly Pro Glu Phe Thr Lys Asp Phe Ala Pro Val 105 100 Ile Val Glu Ala Phe Lys His Val Ser Ser Glu Thr Asp Glu Ser Cys 120 125 Lys Lys His Leu Gly Arg Val Leu Ser Ile Trp Glu Glu Arg Ser 135 140

<210> 2037 <211> 142 <212> PRT <213> Homo sapiens

<400> 2037 Met Ala Ala Val Val Ala Ala Thr Ala Leu Lys Gly Arg Gly Ala Arg 10 Asn Ala Arg Val Leu Arg Gly Ile Leu Ala Gly Ala Thr Ala Asn Lys 20 25 Ala Ser His Asn Arg Thr Arg Ala Leu Gln Ser His Ser Ser Pro Glu 35 40 Gly Lys Glu Glu Pro Glu Pro Leu Ser Pro Glu Leu Glu Tyr Ile Pro 55 60 Arg Lys Arg Gly Lys Asn Pro Met Lys Ala Val Gly Leu Ala Trp Ala 70 75 Ile Gly Phe Pro Cys Gly Ile Leu Leu Phe Ile Leu Thr Lys Arg Glu 90 Val Asp Lys Asp Arg Val Lys Gln Met Lys Ala Arg Gln Asn Met Arg 105 100 Leu Ser Asn Thr Gly Glu Tyr Glu Ser Gln Arg Phe Arg Ala Ser Ser 125 120 Gln Ser Ala Pro Ser Pro Asp Val Gly Ser Gly Val Gln Thr 140 135

<210> 2038 <211> 469 <212> PRT <213> Homo sapiens

<400> 2038
Leu Gln Gln Thr Glu Asp Lys Ser Leu Leu Asn Gln Gly Ser Ser Ser
1 5 10 15
Glu Glu Val Ala Gly Ser Ser Gln Lys Met Gly Gln Pro Gly Pro Ser
20 25 30

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Gly Asp Ser Asp Leu Ala Thr Ala Leu His Arg Leu Ser Leu Arg Arg
                          40
Gln Asn Tyr Leu Ser Glu Lys Gln Phe Phe Ala Glu Glu Trp Gln Arg
                       55
Lys Ile Gln Val Leu Ala Asp Gln Lys Glu Gly Val Ser Gly Cys Val
                70
Thr Pro Thr Glu Ser Leu Ala Ser Leu Cys Thr Thr Gln Ser Glu Ile
                               90
              85
Thr Asp Leu Ser Ser Ala Ser Cys Leu Arg Gly Phe Met Pro Glu Lys
          100
                             105
Leu Gln Ile Val Lys Pro Leu Glu Gly Ser Gln Thr Leu Tyr His Trp
                         120
Gln Gln Leu Ala Gln Pro Asn Leu Gly Thr Ile Leu Asp Pro Arg Pro
                     135
                                        140
Gly Val Ile Thr Lys Gly Phe Thr Gln Leu Pro Gly Asp Ala Ile Tyr
                 150
                                    155
His Ile Ser Asp Leu Glu Glu Asp Glu Glu Glu Gly Ile Thr Phe Gln
             165
                                170
Val Gln Gln Pro Leu Glu Val Glu Glu Lys Leu Ser Thr Ser Lys Pro
         180
                  185
                                      190
Val Thr Gly Ile Phe Leu Pro Pro Ile Thr Ser Ala Gly Gly Pro Val
                          200
                                             205
Thr Val Ala Thr Ala Asn Pro Gly Lys Cys Leu Ser Cys Thr Asn Ser
                     215
                                        220
Thr Phe Thr Phe Thr Thr Cys Arg Ile Leu His Pro Ser Asp Ile Thr
                230
                                    235
Gln Val Thr Pro Ser Ser Gly Phe Pro Ser Leu Ser Cys Gly Ser Ser
           245
                               250
Gly Ser Ser Ser Ser Asn Thr Ala Val Asn Ser Pro Ala Leu Ala Tyr
                             265
Arg Leu Ser Ile Gly Glu Ser Ile Thr Asn Arg Arg Asp Ser Thr Thr
                          280
                                            285
Thr Phe Ser Ser Thr Met Ser Leu Ala Lys Leu Leu Gln Glu Arg Gly
                   295
                                        300
Ile Ser Ala Lys Val Tyr His Ser Pro Ile Ser Glu Asn Pro Leu Gln
                 310
                                     315
Pro Leu Pro Lys Ser Leu Ala Ile Pro Ser Thr Pro Pro Asn Ser Pro
              325
                                 330
Ser His Ser Pro Cys Pro Ser Pro Leu Pro Phe Glu Pro Arg Val His
                345
                                               350
          340
Leu Ser Glu Asn Phe Leu Ala Ser Arg Pro Ala Glu Thr Phe Leu Gln
      355
                         360
                                            365
Glu Met Tyr Gly Leu Arg Pro Ser Arg Asn Pro Pro Asp Val Gly Gln
                      375
Leu Lys Met Asn Leu Val Asp Arg Leu Lys Arg Leu Gly Ile Ala Arg
                 390
                                    395
Val Lys Asn Pro Gly Ala Gln Glu Asn Gly Arg Cys Gln Glu Ala
              405
                                 410
Glu Ile Gly Pro Gln Lys Pro Asp Ser Ala Val Tyr Leu Asn Ser Gly
                             425
Ser Ser Leu Leu Gly Gly Leu Arg Arg Asn Gln Ser Leu Pro Val Ile
                         440
Met Gly Ser Phe Ala Ala Pro Val Cys Thr Ser Ser Pro Lys Met Gly
                     455
Val Leu Lys Glu Asp
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<210> 2039

<211> 873

<212> PRT

<213> Homo sapiens

<400> 2039 Leu Ser Leu Phe Gly Ser Arg Ala Leu Gly Arg Ser Gly Ala Arg Ala Met Ala Lys Ala Lys Lys Val Gly Ala Arg Arg Lys Ala Ser Gly Ala Pro Ala Gly Ala Arg Gly Gly Pro Ala Lys Ala Asn Ser Asn Pro Phe Glu Val Lys Val Asn Arg Gln Lys Phe Gln Ile Leu Gly Arg Lys Thr Arg His Asp Val Gly Leu Pro Gly Val Ser Arg Ala Arg Ala Leu Arg Lys Arg Thr Gln Thr Leu Leu Lys Glu Tyr Lys Glu Arg Asp Lys Ser Asn Val Phe Arg Asp Lys Arg Phe Gly Glu Tyr Asn Ser Asn Met Ser Pro Glu Glu Lys Met Met Lys Arg Phe Ala Leu Glu Gln Gln Arg His His Glu Lys Lys Ser Ile Tyr Asn Leu Asn Glu Asp Glu Glu Leu Thr His Tyr Gly Gln Ser Leu Ala Asp Ile Glu Lys His Asn Asp Ile Val Asp Ser Asp Ser Asp Ala Glu Asp Arg Gly Thr Leu Ser Gly Glu Leu Thr Ala Ala His Phe Gly Gly Gly Gly Leu Leu His Lys Lys Thr Gln Gln Glu Gly Glu Glu Arg Glu Lys Pro Lys Ser Arg Lys Glu Leu Ile Glu Glu Leu Ile Ala Lys Ser Lys Gln Glu Lys Arg Glu Arg Gln Ala Gln Arg Glu Asp Ala Leu Glu Leu Thr Glu Lys Leu Asp Gln Asp Trp Lys Glu Ile Gln Thr Leu Leu Ser His Lys Thr Pro Lys Ser Glu Asn Arg Asp Lys Lys Glu Lys Pro Lys Pro Asp Ala Tyr Asp Met Met Val Arg Glu Leu Gly Phe Glu Met Lys Ala Gln Pro Ser Asn Arg Met Lys Thr Glu Alà Glu Leu Ala Lys Glu Glu Glu Glu His Leu Arg Lys Leu Glu Ala Glu Arg Leu Arg Arg Met Leu Gly Lys Asp Glu Asp Glu Asn Val Lys Lys Pro Lys His Met Ser Ala Asp Asp Leu Asn Asp Gly .325 Phe Val Leu Asp Lys Asp Asp Arg Arg Leu Leu Ser Tyr Lys Asp Gly Lys Met Asn Val Glu Glu Asp Val Gln Glu Glu Gln Ser Lys Glu Ala Ser Asp Pro Glu Ser Asn Glu Glu Glu Gly Asp Ser Ser Gly Gly Glu Asp Thr Glu Glu Ser Asp Ser Pro Asp Ser His Leu Asp Leu Glu Ser Asn Val Glu Ser Glu Glu Glu Asn Glu Lys Pro Ala Lys Glu Gln Arg Gln Thr. Pro Gly Lys Gly Leu Ile Ser Gly Lys Glu Arg Ala Gly Lys Ala Thr Arg Asp Glu Leu Pro Tyr Thr Phe Ala Ala Pro Glu Ser Tyr Glu Glu Leu Arg Ser Leu Leu Leu Gly Arg Ser Met Glu Glu Gln Leu Leu Val Val Glu Arg Ile Gln Lys Cys Asn His Pro Ser Leu Ala Glu Gly Asn Lys Ala Lys Leu Glu Lys Leu Phe Gly Phe Leu Leu Glu Tyr

Val Gly Asp Leu Ala Thr Asp Asp Pro Pro Asp Leu Thr Val Ile Asp 500 505 Lys Leu Val Val His Leu Tyr His Leu Cys Gln Met Phe Pro Glu Ser 520 Ala Ser Asp Ala Ile Lys Phe Val Leu Arg Asp Ala Met His Glu Met 535 540 Glu Glu Met Ile Glu Thr Lys Gly Arg Ala Ala Leu Pro Gly Leu Asp Val Leu Ile Tyr Leu Lys Ile Thr Gly Leu Leu Phe Pro Thr Ser Asp 570 565 Phe Trp His Pro Val Val Thr Pro Ala Leu Val Cys Leu Ser Gln Leu 585 580 Leu Thr Lys Cys Pro Ile Leu Ser Leu Gln Asp Val Val Lys Gly Leu 600 Phe Val Cys Cys Leu Phe Leu Glu Tyr Val Ala Leu Ser Gln Arg Phe 615 620 Ile Pro Glu Leu Ile Asn Phe Leu Leu Gly Ile Leu Tyr Ile Ala Thr 630 635 Pro Asn Lys Ala Ser Gln Gly Ser Thr Leu Val His Pro Phe Arg Ala 645 650 Leu Gly Lys Asn Ser Glu Leu Leu Val Val Ser Ala Arg Glu Asp Val 660 665 Ala Thr Trp Gln Gln Ser Ser Leu Ser Leu Arg Trp Ala Ser Arg Leu 675 680 685 Arg Ala Pro Thr Ser Thr Glu Ala Asn His Ile Arg Leu Ser Cys Leu 695 Ala Val Gly Leu Ala Leu Leu Lys Arg Cys Val Leu Met Tyr Gly Ser 710 715 Leu Pro Ser Phe His Ala Ile Met Gly Pro Leu Arg Ala Leu Leu Thr 725 730 Asp His Leu Ala Asp Cys Ser His Pro Gln Glu Leu Gln Glu Leu Cys 745 Gln Ser Thr Leu Thr Glu Met Glu Ser Gln Lys Gln Leu Cys Arg Pro 760 Leu Thr Cys Glu Lys Ser Lys Pro Val Pro Leu Lys Leu Phe Thr Pro 775 780 Arg Leu Val Lys Val Leu Glu Phe Gly Arg Lys Gln Gly Ser Ser Lys 790 795 Glu Glu Glu Arg Lys Arg Leu Ile His Lys His Lys Arg Glu Phe 810 Lys Gly Ala Val Arg Glu Ile Arg Lys Asp Asn Gln Phe Leu Ala Arg 825 820 Met Gln Leu Ser Glu Ile Met Glu Arg Asp Ala Glu Arg Lys Arg Lys 835 840 845 Val Lys Gln Leu Phe Asn Ser Leu Ala Thr Gln Glu Gly Glu Trp Lys 855 Ala Leu Lys Arg Lys Lys Phe Lys Lys 870

<210> 2040 <211> 101 <212> PRT <213> Homo sapiens

<210> 2041 <211> 51 <212> PRT <213> Homo sapiens

<210> 2042 <211> 404 <212> PRT <213> Homo sapiens

<400> 2042 Gly Met Glu Pro Val Gly Cys Cys Gly Glu Cys Arg Gly Ser Ser Val 10 5 Asp Pro Arg Ser Thr Phe Val Leu Ser Asn Leu Ala Glu Val Val Glu 25 20 Arg Val Leu Thr Phe Leu Pro Ala Lys Ala Leu Leu Arg Val Ala Cys 40 35 Val Cys Arg Leu Trp Arg Glu Cys Val Arg Arg Val Leu Arg Thr His 55 60 Arg Ser Val Thr Trp Ile Ser Ala Gly Leu Ala Glu Ala Gly His Leu 75 70 Glu Gly His Cys Leu Val Arg Val Val Ala Glu Glu Leu Glu Asn Val 90 85 Arg Ile Leu Pro His Thr Val Leu Tyr Met Ala Asp Ser Glu Thr Phe 105 110 100 Ile Ser Leu Glu Glu Cys Arg Gly His Lys Arg Ala Arg Lys Arg Thr 120 125 Ser Met Glu Thr Ala Leu Ala Leu Glu Lys Leu Phe Pro Lys Gln Cys 140 135 130 Gln Val Leu Gly Ile Val Thr Pro Gly Ile Val Val Thr Pro Met Gly 155 150 Ser Gly Ser Asn Arg Pro Gln Glu Ile Glu Ile Gly Glu Ser Gly Phe 175 170 165 Ala Leu Leu Phe Pro Gln Ile Glu Gly Ile Lys Ile Gln Pro Phe His 180 185 Phe Ile Lys Asp Pro Lys Asn Leu Thr Leu Glu Arg His Gln Leu Thr 205 195 200 Glu Val Gly Leu Leu Asp Asn Pro Glu Leu Arg Val Val Leu Val Phe 215 220 210

Gly Tyr Asn Cys Cys Lys Val Gly Ala Ser Asn Tyr Leu Gln Gln Val 230 235 Val Ser Thr Phe Ser Asp Met Asn Ile Ile Leu Ala Gly Gly Gln Val 245 250 Asp Asn Leu Ser Ser Leu Thr Ser Glu Lys Asn Pro Leu Asp Ile Asp 260 265 270 Ala Ser Gly Val Val Gly Leu Ser Phe Ser Gly His Arg Ile Gln Ser 275 280 285 Ala Thr Val Leu Leu Asn Glu Asp Val Ser Asp Glu Lys Thr Ala Glu 295 300 Ala Ala Met Gln Arg Leu Lys Ala Ala Asn Ile Pro Glu His Asn Thr 305 310 315 320 Ile Gly Phe Met Phe Ala Cys Val Gly Arg Gly Phe Gln Tyr Tyr Arg 325 330 Ala Lys Gly Asn Val Glu Ala Asp Ala Phe Arg Lys Phe Phe Pro Ser 345 340 Val Pro Leu Phe Gly Phe Phe Gly Asn Gly Glu Ile Gly Cys Asp Arg 355 360 365 Ile Val Thr Gly Asn Phe Ile Leu Arg Lys Cys Asn Glu Val Lys Asp 370 375 380 Asp Asp Leu Phe His Ser Tyr Thr Thr Ile Met Ala Leu Ile His Leu Gly Ser Ser Lys 404

<210> 2043 <211> 48 <212> PRT <213> Homo sapiens

<210> 2044 <211> 68 <212> PRT <213> Homo sapiens

<210> 2045 <211> 490 <212> PRT <213> Homo sapiens

<400> 2045 Glu Thr Arg Ser Thr Ala Val Lys Ser Glu Val Gln Val Cys Ile Ser 10 Leu Leu Cys Leu Glu Asp Arg Thr Met Pro Lys Lys Ala Lys Pro Thr Gly Ser Gly Lys Glu Glu Gly Pro Ala Pro Cys Lys Gln Met Lys 40 Leu Glu Ala Ala Gly Gly Pro Ser Ala Leu Asn Phe Asp Ser Pro Ser 55 Ser Leu Phe Glu Ser Leu Ile Ser Pro Ile Lys Thr Glu Thr Phe Phe 70 75 Lys Glu Phe Trp Glu Gln Lys Pro Leu Leu Ile Gln Arg Asp Asp Pro 85 90 Ala Leu Ala Thr Tyr Tyr Gly Ser Leu Phe Lys Leu Thr Asp Leu Lys 105 100 Ser Leu Cys Ser Arg Gly Met Tyr Tyr Gly Arg Asp Val Asn Val Cys 125 115 120 Arg Cys Val Asn Gly Lys Lys Lys Val Leu Asn Lys Asp Gly Lys Ala 135 140 His Phe Leu Gln Leu Arg Lys Asp Phe Asp Gln Lys Arg Ala Thr Ile 155 150 Gln Phe His Gln Pro Gln Arg Phe Lys Asp Glu Leu Trp Arg Ile Gln 165 170 175 Glu Lys Leu Glu Cys Tyr Phe Gly Ser Leu Val Gly Ser Asn Val Tyr 180 185 Ile Thr Pro Ala Gly Ser Gln Gly Leu Pro Pro His Tyr Asp Asp Val 205 200 Glu Val Phe Ile Leu Gln Leu Glu Gly Glu Lys His Trp Arg Leu Tyr 215 220 His Pro Thr Val Pro Leu Ala Arg Glu Tyr Ser Val Glu Ala Glu Glu 235 240 230 Arg Ile Gly Arg Pro Val His Glu Phe Met Leu Lys Pro Gly Asp Leu 245 250 Leu Tyr Phe Pro Arg Gly Thr Ile His Gln Ala Asp Thr Pro Ala Gly 260 265 Leu Ala His Ser Thr His Val Thr Ile Ser Thr Tyr Gln Asn Asn Ser 280 285 Trp Gly Asp Phe Leu Leu Asp Thr Ile Ser Gly Leu Val Phe Asp Thr 295 300 Ala Lys Glu Asp Val Glu Leu Arg Thr Gly Ile Pro Arg Gln Leu Leu 315 320 310 Leu Gln Val Glu Ser Thr Thr Val Ala Thr Arg Arg Leu Ser Gly Phe 325 330 .335 Leu Arg Thr Leu Ala Asp Arg Leu Glu Gly Thr Lys Glu Leu Leu Ser 350 340 345 Ser Asp Met Lys Lys Asp Phe Ile Met His Arg Leu Pro Pro Tyr Ser 365 360 Ala Gly Asp Gly Ala Glu Leu Ser Thr Pro Gly Gly Lys Leu Pro Arg 375 380 Leu Asp Ser Val Val Arg Leu Gln Phe Lys Asp His Ile Val Leu Thr 390 395 Val Leu Pro Asp Gln Asp Gln Ser Asp Glu Thr Gln Glu Lys Met Val 405 410 Tyr Ile Tyr His Ser Leu Lys Asn Ser Arg Glu Thr His Met Met Gly 420 425 Asn Glu Glu Glu Thr Glu Phe His Gly Leu Arg Phe Pro Leu Ser His 440

Leu Asp Ala Leu Lys Gln Ile Trp Asn Ser Pro Ala Ile Ser Val Lys 450 460

Asp Leu Lys Leu Thr Thr Asp Glu Glu Lys Glu Ser Leu Val Leu Ser 465 470 480

Leu Trp Thr Glu Cys Leu Ile Gln Val Val 490

<210> 2046 <211> 245 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(245) <223> Xaa = any amino acid or nothing

<400> 2046 Leu Met Lys Xaa Tyr Leu Glu Ala Ala Glu Leu Gly Glu Ile Ser Asp 10 Ile His Thr Lys Leu Leu Arg Leu Ser Ser Ser Gln Gly Thr Ile Glu 20 25 Thr Ser Leu Gln Asp Ile Asp Ser Arg Leu Ser Pro Gly Gly Ser Leu 35 ' 40 Ala Asp Ala Trp Ala His Gln Glu Gly Thr His Pro Lys Asp Arg Asn 55 · 60 50 Val Glu Lys Leu Gln Val Leu Leu Asn Cys Met Thr Glu Ile Tyr Tyr . 70 75 Gln Phe Lys Lys Asp Lys Ala Glu Arg Arg Leu Ala Tyr Asn Glu Glu 85 90 95 Gln Ile His Lys Phe Asp Lys Gln Lys Leu Tyr Tyr His Ala Thr Lys 100 105 110 Ala Met Thr His Phe Thr Asp Glu Cys Val Lys Lys Tyr Glu Ala Phe 120 125 Leu Asn Lys Ser Glu Glu Trp Ile Arg Lys Met Leu His Leu Arg Lys 135 140 Gln Leu Leu Ser Leu Thr Asn Gln Cys Phe Asp Ile Glu Glu Glu Val 150 155 Ser Lys Tyr Gln Glu Tyr Thr Asn Glu Leu Gln Glu Thr Leu Pro Gln 165 170 175 Lys Met Phe Thr Ala Ser Ser Gly Ile Lys His Thr Met Thr Pro Ile 190 180 185 Tyr Pro Ser Ser Asn Thr Leu Val Glu Met Thr Leu Gly Met Lys Lys 200 205 Leu Lys Glu Glu Met Glu Gly Val Val Lys Glu Leu Ala Glu Asn Asn 215 220 His Ile Leu Glu Ser Gly Gly Ser Leu Thr Met Asp Gly Gly Leu Arg 225 230 235 Asn Val Asp Cys Leu

<210> 2047 <211> 78 <212> PRT <213> Homo sapiens

245

. <400> 2047
Leu Asp Tyr Asn Phe Phe Leu Phe Glu Met Thr Phe Gly Leu Val Ser
1 5 10 15

Gln Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu Gln Pro Pro Pro 20 25 30

Pro Gly Phe Lys Gln Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Asp 35 40 45

Tyr Arg His Leu Pro Pro His Leu Ala Asn Phe Ser Arg Glu Gly Val 50 55 60

Ser Pro Ser Trp Pro Gly Trp Ser Arg Thr Pro Asp Phe Arg 65 70 78

<210> 2048 <211> 149 <212> PRT <213> Homo sapiens

<400> 2048 Leu Pro Ile Arg Lys Ser Leu Arg Ser Val Arg Ser Gly Phe Pro Thr 10 5 Ser Gln Ser Pro Ile Thr Arg Asn Leu Asp Gly Thr Ala Ser Gly Ser 20 25 Cys Leu Ala Lys Thr Val Thr Gly Ser Leu Phe Arg Ile Asn Val Gly 40 Leu Arg Gly Leu Val Ala Gly Gly Ile Ile Gly Ala Leu Leu Gly Thr 55 Pro Val Gly Gly Leu Leu Met Ala Phe Gln Lys Tyr Ser Gly Glu Thr 70 75 Val Gln Glu Arg Lys Gln Lys Asp Arg Lys Ala Leu His Glu Leu Lys 85 90 95 Leu Glu Glu Trp Lys Gly Arg Leu Gln Val Thr Glu His Leu Pro Glu 105 100 Lys Ile Glu Ser Ser Leu Gln Glu Asp Glu Pro Glu Asn Asp Ala Lys 120 125 Lys Ile Glu Ala Leu Leu Asn Leu Pro Arg Asn Pro Ser Val Ile Asp 130 140 Lys Gln Asp Lys Asp 1.45 149

<210> 2049 <211> 141 <212> PRT <213> Homo sapiens

<400> 2049 Arg Pro His Gly His Leu Val Cys Ile Ser Ser Ser Ala Gly Leu Ser 10 5 Gly Val Asn Gly Leu Ala Asp Tyr Cys Ala Ser Lys Phe Ala Ala Phe 20 25 Gly Phe Ala Glu Ser Val Phe Val Glu Thr Phe Val Gln Lys Gln Lys .35 40 Gly Ile Lys Thr Thr Ile Val Cys Pro Phe Phe Ile Lys Thr Gly Met 60 55 Phe Glu Gly Cys Thr Thr Gly Cys Pro Ser Leu Leu Pro Ile Leu Glu 70 75 Pro Lys Tyr Ala Val Glu Lys Ile Val Glu Ala Ile Leu Gln Glu Lys Met Tyr Leu Tyr Met Pro Lys Leu Leu Tyr Phe Met Met Phe Leu Lys 100 105 Ser Phe Leu Pro Leu Lys Thr Gly Leu Leu Ile Ala Asp Tyr Leu Gly 125 120

Ile Leu His Ala Met Asp Gly Phe Ala Asp Gln Lys Lys 130 135 140 141

<210> 2050 <211> 204 <212> PRT <213> Homo sapiens

<400> 2050 Pro Thr Ala Glu Glu Met Ser Ser Leu Thr Pro Glu Ser Ser Pro Glu 10 Leu Ala Lys Arg Ser Trp Phe Gly Asn Phe Ile Ser Leu Asp Lys Glu 20 25 30 Glu Gln Ile Phe Leu Val Leu Lys Asp Lys Pro Leu Ser Ser Ile Lys 40 Ala Asp Ile Val His Ala Phe Leu Ser Ile Pro Ser Leu Ser His Ser . 55 60 Val Leu Ser Gln Thr Ser Phe Arg Ala Glu Tyr Lys Ala Ser Gly Gly 70 75 Pro Ser Val Phe Gln Lys Pro Val Arg Phe Gln Val Asp Ile Ser Ser 85 90 Ser Glu Gly Pro Glu Pro Ser Pro Arg Arg Asp Gly Ser Gly Gly Gly 105 110 100 Gly Ile Tyr Ser Val Thr Phe Thr Leu Ile Ser Gly Pro Ser Arg Arg 120 125 115 Phe Lys Arg Val Val Glu Thr Ile Gln Ala Gln Leu Leu Ser Thr His 135 140 Asp Gln Pro Ser Val Gln Ala Leu Ala Asp Glu Lys Asn Gly Ala Gln 145 150 155 Thr Arg Pro Ala Gly Ala Pro Pro Arg Ser Leu Gln Pro Pro Pro Gly 165 170 175 Arg Pro Asp Pro Glu Leu Ser Ser Ser Pro Arg Arg Gly Pro Pro Lys 180 185 Asp Lys Lys Leu Leu Ala Thr Asn Gly Thr Pro Leu 200

<210> 2051 <211> 459 <212> PRT <213> Homo sapiens

<400> 2051 His Ala Ser Val Leu Phe Cys Arg Val Met Ala Ala Ser Lys Thr Gln 10 Gly Ala Val Ala Arg Met Gln Glu Asp Arg Asp Gly Ser Cys Ser Thr 25 Val Gly Gly Val Gly Tyr Gly Asp Ser Lys Asp Cys Ile Leu Glu Pro 40 Leu Ser Leu Pro Glu Ser Pro Gly Gly Thr Thr Thr Leu Glu Gly Ser 55 Pro Ser Val Pro Cys Ile Phe Cys Glu Glu His Phe Pro Val Ala Glu Gln Asp Lys Leu Leu Lys His Met Ile Ile Glu His Lys Ile Val Ile 85 90 Ala Asp Val Lys Leu Val Ala Asp Phe Gln Arg Tyr Ile Leu Tyr Trp 100 105 Arg Lys Arg Phe Thr Glu Gln Pro Ile Thr Asp Phe Cys Ser Val Ile 120 125

Arg Ile Asn Ser Thr Ala Pro Phe Glu Glu Glu Glu Asn Tyr Phe Leu Leu Cys Asp Val Leu Pro Glu Asp Arg Ile Leu Arg Glu Glu Leu Gln Lys Gln Arg Leu Arg Glu Ile Leu Glu Gln Gln Gln Gln Glu Arg Asn Asp Thr Asn Phe His Gly Val Cys Met Phe Cys Asn Glu Glu Phe Leu Gly Asn Arg Ser Val Ile Leu Asn His Met Ala Arg Glu His Ala Phe Asn Ile Gly Leu Pro Asp Asn Ile Val Asn Cys Asn Glu Phe Leu Cys Thr Leu Gln Lys Lys Leu Asp Asn Leu Gln Cys Leu Tyr Cys Glu Lys 230 235 Thr Phe Arg Asp Lys Asn Thr Leu Lys Asp His Met Arg Lys Lys Gln His Arg Lys Ile Asn Pro Lys Asn Arg Glu Tyr Asp Arg Phe Tyr Val Ile Asn Tyr Leu Glu Leu Gly Lys Ser Trp Glu Glu Val Gln Leu Glu Asp Asp Arg Glu Leu Leu Asp His Gln Glu Asp Asp Trp Ser Asp Trp 290 295 300 Glu Glu His Pro Ala Ser Ala Val Cys Leu Phe Cys Glu Lys Gln Ala Glu Thr Ile Glu Lys Leu Tyr Val His Met Glu Asp Ala His Glu Phe Asp Leu Leu Lys Ile Lys Ser Glu Leu Gly Leu Asn Phe Tyr Gln Gln Val Lys Leu Val Asn Phe Ile Arg Arg Gln Val His Gln Cys Arg Cys Tyr Gly Cys His Val Lys Phe Lys Ser Lys Ala Asp Leu Arg Thr His Met Glu Glu Thr Lys His Thr Ser Leu Leu Pro Asp Arg Lys Thr Trp 390 395 Asp Gln Leu Glu Tyr Tyr Phe Pro Thr Tyr Glu Asn Asp Thr Leu Leu Trp Thr Leu Ser Asp Ser Glu Ser Asp Leu Thr Ala Gln Glu Gln Asn Glu Asn Val Pro Ile Ile Ser Glu Asp Thr Ser Lys Leu Tyr Ala Leu Lys Gln Ser Ser Ile Leu Asn Gln Leu Leu Leu 

<210> 2052 <211> 321 <212> PRT <213> Homo sapiens

 Add of the control o

Thr Gly Lys Ser Tyr Val Ser Ser Leu Leu Ala His Tyr Leu Phe Gln 100 105 Gly Gly Leu Arg Ser Pro Arg Val His His Phe Ser Pro Val Leu His 120 Phe Pro His Pro Ser His Ile Glu Arg Tyr Lys Lys Asp Leu Lys Ser 130 135 140 Trp Val Gln Gly Asn Leu Thr Ala Cys Gly Arg Ser Leu Phe Leu Phe 145 150 155 Asp Glu Met Asp Lys Met Pro Pro Gly Leu Met Glu Val Leu Arg Pro 170 165 Phe Leu Gly Ser Ser Trp Val Val Tyr Gly Thr Asn Tyr Arg Lys Ala 180 185 190 Ile Phe Ile Phe Ile Ser Asn Thr Gly Gly Glu Gln Ile Asn Gln Val 195 200 205 Ala Leu Glu Ala Trp Arg Ser Arg Arg Asp Arg Glu Glu Ile Leu Leu 215 220 Gln Glu Leu Glu Pro Val Ile Ser Arg Ala Val Leu Asp Asn Pro His 235 230 His Gly Phe Ser Asn Ser Gly Ile Met Glu Glu Arg Leu Leu Asp Ala 245 250 Val Val Pro Phe Leu Pro Leu Gln Arg His His Val Arg His Cys Val 260 265 270 265 260 Leu Asn Glu Leu Ala Gln Leu Gly Leu Glu Pro Arg Asp Glu Val Val 275 280 285 Gln Ala Val Leu Asp Ser Thr Thr Phe Phe Pro Glu Asp Glu Gln Leu 290 295 300 Phe Ser Ser Asn Gly Cys Lys Thr Val Ala Ser Arg Ile Ala Phe Phe 315 Leu 321

<210> 2053 <211> 126 <212> PRT

<213> Homo sapiens

<400> 2053 Leu Phe Leu Gln Lys Leu Arg Met Lys Thr Glu Glu Glu Ala Arg Thr 10 His Thr Glu Ile Glu Met Phe Leu Arg Lys Glu Gln Gln Lys Leu Glu . 20 25 Glu Arg Leu Glu Phe Trp Met Glu Lys Tyr Asp Lys Asp Thr Glu Met 35 40 45 Lys Gln Asn Glu Leu Asn Ala Leu Lys Ala Thr Lys Ala Ser Asp Leu 55 60 Ala His Leu Gln Asp Leu Ala Lys Met Ile Arg Glu Tyr Glu Gln Val Ile Ile Glu Asp Arg Ile Glu Lys Glu Arg Ser Lys Lys Lys Val Lys
85 90 95 8.5 90 Gln Asp Leu Leu Glu Leu Lys Ser Val Ile Lys Leu Gln Ala Trp Trp 100 105 Arg Gly Thr Met Ile Arg Arg Glu Ile Gly Gly Phe Lys Met

<210> 2054 <211> 334 <212> PRT <213> Homo sapiens

<400> 2054 Phe Arg Gly Arg Ala Val Lys Met Ala Ala Val Val Glu Val Glu Val 10 Gly Gly Gly Ala Ala Gly Glu Arg Glu Leu Asp Glu Val Asp Met Ser 20 25 Asp Leu Ser Pro Glu Glu Gln Trp Arg Val Glu His Ala Arg Met His 40 Ala Lys His Arg Gly His Glu Ala Met His Ala Glu Met Val Leu Ile 55 60 Leu Ile Ala Thr Leu Val Val Ala Gln Leu Leu Leu Val Gln Trp Lys 65 70 75 Gln Arg His Pro Arg Ser Tyr Asn Met Val Thr Leu Phe Gln Met Trp 85 90 Val Val Pro Leu Tyr Phe Thr Val Lys Leu His Trp Trp Arg Phe Leu
100 105 110 100 105 Val Ile Trp Ile Leu Phe Ser Ala Val Thr Ala Phe Val Thr Phe Arg 115 120 125 Ala Thr Arg Lys Pro Leu Val Gln Thr Thr Pro Arg Leu Val Tyr Lys 135 140 Trp Phe Leu Leu Ile Tyr Lys Ile Ser Tyr Ala Thr Gly Ile Val Gly 150 155 Tyr Met Ala Val Met Phe Thr Leu Phe Gly Leu Asn Leu Leu Phe Lys 170 175 165 Ile Lys Pro Glu Asp Ala Met Asp Phe Gly Ile Ser Leu Leu Phe Tyr 190 180 185 Gly Leu Tyr Tyr Gly Val Leu Glu Arg Asp Phe Ala Glu Met Cys Ala 195 200 205 Asp Tyr Met Ala Ser Thr Ile Gly Phe Tyr Ser Glu Ser Gly Met Pro 210 215 220 215 Thr Lys His Leu Ser Asp Ser Val Cys Ala Val Cys Gly Gln Gln Ile 230 235 Phe Val Asp Val Ser Glu Glu Gly Ile Ile Glu Asn Thr Tyr Arg Leu 250 255 245 Ser Cys Asn His Val Phe His Glu Phe Cys Ile Arg Gly Trp Cys Ile 260 265 270 Val Gly Lys Lys Gln Thr Cys Pro Tyr Cys Lys Glu Lys Val Asp Leu 280 285 275 Lys Arg Met Phe Ser Asn Pro Trp Glu Arg Pro His Val Met Tyr Gly 290 295 300 Gln Leu Leu Asp Trp Leu Arg Tyr Leu Val Ala Trp Gln Pro Val Ile 310 315 Ile Gly Val Val Gln Gly Ile Asn Tyr Ile Leu Gly Leu Glu 330

<210> 2055 <211> 223 <212> PRT

<213> Homo sapiens

<400> 2055

Pro Pro Arg Ala Val Ile Pro Leu Lys Arg Pro Arg Val Ala Val Thr 90 85 Thr Thr Arg Arg Gly Lys Gly Val Phe Ser Met Lys Gly Gly Ser Arg 110 105 100 Ser Thr Ala Ser Gly Ser Thr Gly Ser Lys Leu Lys Ser Asp Glu Leu 120 115 Gln Thr Ile Lys Lys Glu Leu Thr Gln Ile Lys Thr Lys Ile Asp Ser 135 140 Val Leu Gly Arg Leu Asp Lys Ile Glu Lys Gln Gln Lys Ala Glu Ala 145 150 150 155 160 Glu Ala Gln Lys Lys Leu Leu Glu Glu Ser Leu Val Leu Ile Gln Glu 165 170 175 Glu Cys Val Ser Glu Ile Ala Asp His Ser Thr Glu Glu Pro Ala Glu 180 185 . 190 Gly Gly Pro Asp Ala Asp Gly Glu Glu Met Thr Asp Gly Ile Glu Glu 200 205 Ala Phe Asp Glu Asp Gly Gly His Glu Leu Phe Leu Gln Ile Lys 215

<210> 2056 <211> 32 <212> PRT <213> Homo sapiens

<210> 2057 <211> 93 <212> PRT <213> Homo sapiens

<400> 2057 Pro Phe Lys Leu Thr Pro Ser Phe Leu Ser His Ala Phe Ser Ser Gly 10 Gln Glu Arg Lys Val Phe Ile Glu Leu Asn His Ile Lys Lys Cys Asn 20 25 30 Thr Val Arg Gly Val Phe Val Leu Glu Glu Phe Gly Asn Tyr Thr Ile 40 45 Leu Leu Gly Leu Asp Ser His Gly Ser Asn Ser Asn Leu Gly Ala 60 55 Pro Glu Glu Gly Leu Gly Ala Gly Arg Lys Arg Thr Ser Val Glu Lys 70 75 Ser Gly Gly Ala Gly Val Thr Arg Lys Lys Arg Asp Pro 85 90

<210> 2058 <211> 95 <212> PRT <213> Homo sapiens

<400> 2058 Ser Ser Ser Asn Pro Leu Gly Ser Pro Ser Thr Leu Trp Lys Leu Cys 10 5 Ser Phe Val Leu His Asn Lys Ser Cys Cys Cys Ser Phe Phe Gly Ser 25 20 Thr Pro Thr Leu Arg Ala Ile Thr Leu Thr Val Arg Val Cys Gly Phe 45 40 Ile Pro Glu Val Ser Lys Thr Thr Asn Pro Leu Gly Arg Thr Asn Asn 60 55 Ser Gly Cys Thr Ile Phe Lys Thr Val Thr Leu Thr Ala Arg Ser Thr 75 70 Ala Ser Leu Leu Lys Ser Val Arg Pro Arg Thr His Gln Lys Glu 85 90

<210> 2059 <211> 110 <212> PRT <213> Homo sapiens

<400> 2059 Arg Ile Arg His Glu Glu Lys Arg Gly Ser Arg Gly Arg Gly Arg Arg 10 Thr Ser Glu Glu Asp Thr Pro Lys Lys Lys His Lys Gly Gly Ser 25 20 Glu Phe Thr Asp Thr Ile Leu Ser Val His Pro Ser Asp Val Leu Asp 45 40 35 Met Pro Val Asp Pro Asn Glu Pro Thr Tyr Cys Leu Cys His Gln Val 50 55 Ser Tyr Gly Glu Met Ile Gly Cys Asp Asn Pro Asp Cys Pro Ile Glu 75 Trp Phe His Phe Ala Cys Val Asp Leu Thr Thr Lys Pro Lys Gly Lys 85 Trp Phe Cys Pro Arg Cys Val Gln Glu Lys Arg Lys Lys 105 100

<210> 2060 <211> 171 <212> PRT <213> Homo sapiens

<400> 2060 Gln Glu Ser Leu Lys Lys Lys Ile Gln Pro Lys Leu Ser Leu Thr Leu 10 Ser Ser Ser Val Ser Arg Gly Asn Val Ser Thr Pro Pro Arg His Ser 25 30 Ser Gly Ser Leu Thr Pro Pro Val Thr Pro Pro Ile Thr Pro Ser Ser 40 Ser Phe Arg Ser Ser Thr Pro Thr Gly Ser Glu Tyr Asp Glu Glu Glu 55 60 Val Asp Tyr Glu Glu Ser Asp Ser Asp Glu Ser Trp Thr Thr Glu Ser 75 Ala Ile Ser Ser Glu Ala Ile Leu Ser Ser Met Cys Met Asn Gly Gly 90 85 Glu Glu Lys Pro Phe Ala Cys Pro Val Pro Gly Cys Lys Lys Arg Tyr 100 105 110 Lys Asn Val Asn Gly Ile Lys Tyr His Ala Lys Asn Gly His Arg Thr 125 120

<210> 2061 <2i1> 106 <212> PRT <213> Homo sapiens

<400> 2061 Gly Asp Ser Leu Cys Val Pro Gln Tyr Asn Lys Tyr Arg Glu Glu Arg Val Ile Leu Phe Leu Lys Met Ala Ser Gly His Ala Phe Gln Pro Asp 20 25 Leu Val Lys Arg Ile Arg Asp Ala Ile Arg Met Gly Leu Ser Ala Arg 35 . 40 45 His Val Pro Ser Leu Ile Leu Glu Thr Lys Gly Ile Pro Tyr Thr Leu 55 60 Asn Gly Lys Lys Val Glu Val Ala Val Lys Gln Ile Ile Ala Gly Lys 70 75 Ala Val Glu Gln Gly Gly Ala Phe Ser Asn Pro Glu Thr Leu Asp Leu 85 90 Tyr Arg Asp Ile Pro Glu Leu Gln Gly Phe 100 105 106

<210> 2062 <211> 219 <212> PRT <213> Homo sapiens

<400> 2062 Arg Pro Thr Pro Gly His Gly Asp Phe Trp Met Gln Pro Leu Thr Lys 10 Asp Ala Gly Met Ser Leu Ser Ser Val Thr Leu Ala Ser Ala Leu Gln 20 25 Val Arg Gly Glu Ala Leu Ser Glu Glu Glu Ile Trp Ser Leu Leu Phe 40 Leu Ala Ala Glu Gln Leu Leu Glu Asp Leu Arg Asn Asp Ser Ser Asp 55 60 Tyr Val Val Cys Pro Trp Ser Ala Leu Leu Ser Ala Ala Gly Ser Leu 70 75 Ser Phe Gln Gly Arg Val Ser His Ile Glu Ala Ala Pro Phe Lys Ala Pro Glu Leu Leu Gln Gly Gln Ser Glu Asp Glu Gln Pro Asp Ala Ser 100 105 110 Gln Met His Val Tyr Ser Leu Gly Met Thr Leu Tyr Trp Ser Ala Gly
115 120 125 Phe His Val Pro Pro His Gln Pro Leu Gln Leu Cys Glu Pro Leu His 135 140 Ser Ile Leu Leu Thr Met Cys Glu Asp Gln Pro His Arg Arg Cys Thr 150 155 Leu Gln Ser Val Leu Glu Ala Cys Arg Val His Glu Lys Glu Val Ser 165 170 Val Tyr Pro Ala Pro Ala Gly Leu His Ile Arg Arg Leu Val Gly Leu

 Val
 Leu Gly
 Thr
 Ile Ser Glu
 Val
 Ser Arg
 Glu
 Pro
 Cys
 Phe
 Ser Ser

 195
 200
 205

 Ser Ser Cys
 Trp
 Ser Cys
 Val
 Ala
 Ile
 Lys
 Ile

 210
 215
 219

<210> 2063 <211> 152 <212> PRT <213> Homo sapiens

<400> 2063 Val Glu Glu Leu Ile Leu Val Ser Arg Leu Asp Pro His Leu His Thr 10 5 1 Pro Met Tyr Phe Phe Leu Ala His Leu Ser Phe Leu Asp Leu Ser Phe 25 20 Thr Thr Ser Ser Ile Pro Gln Leu Leu Tyr Asn Leu Asn Gly Cys Asp 40 Lys Thr Ile Ser Tyr Met Gly Cys Ala Ile Gln Leu Phe Leu Phe Leu 55 60 Gly Leu Gly Gly Val Glu Cys Leu Leu Leu Ala Val Met Ala Tyr Asp 75 70 65 Arg Cys Val Ala Ile Cys Lys Pro Leu His Tyr Met Val Ile Met Asn 95 90 85 Pro Arg Leu Cys Arg Gly Leu Val Ser Val Thr Trp Gly Cys Gly Val 105 110 100 Ala Asn Ser Leu Ala Met Ser Pro Val Thr Leu Arg Leu Pro Arg Cys 120 125 115 Gly His His Glu Val Asp His Phe Leu Cys Glu Met Pro Ala Leu Ile 135 140 Arg Met Ala Cys Ile Ser Thr Val 150 152 145

<210> 2064 <211> 65 <212> PRT <213> Homo sapiens

<400> 2064 Ala Ile Arg Pro Tyr Trp Cys Glu Asn Asn Ile Ile Gly Ile Gly Lys 10 1 5 Leu Ser Thr Ala Asp Gly Lys Ala Phe Ala Asp Pro Glu Val Leu Arg 20 25 Arg Leu Thr Ser Ser Val Ser Cys Ala Leu Asp Glu Ala Ala Ala Ala 45 40 35 Leu Thr Arg Met Arg Ala Glu Ser Thr Ala Asn Ala Gly Gln Ser Asp 60 Lys 65

<210> 2065 <211> 268 <212> PRT <213> Homo sapiens

_____

<400> 2065

Lys Val Thr Ala Pro Arg Arg Pro Gln Arg Tyr Ser Ser Gly His Gly 10 Ser Asp Asn Ser Ser Val Leu Ser Gly Glu Leu Pro Pro Ala Met Gly 20 25 Arg Thr Ala Leu Phe His His Ser Gly Gly Ser Ser Gly Tyr Glu Ser 40 Leu Arg Arg Asp Ser Glu Ala Thr Gly Ser Ala Ser Ser Ala Pro Asp 55 Ser Met Ser Glu Ser Gly Ala Ala Ser Pro Gly Ala Arg Thr Arg Ser 70 Leu Lys Ser Pro Lys Lys Arg Ala Thr Gly Leu Gln Arg Arg Leu 85 90 95 Ile Pro Ala Pro Leu Pro Asp Thr Thr Ala Leu Gly Arg Lys Pro Ser 100 105 110 Leu Pro Gly Gln Trp Val Asp Leu Pro Pro Pro Leu Ala Gly Ser Leu 120 125 Lys Glu Pro Phe Glu Ile Lys Val Tyr Glu Ile Asp Asp Val Glu Arg 135 140 Leu Gln Arg Pro Arg Pro Thr Pro Arg Glu Ala Pro Thr Gln Gly Leu 150 155 Ala Cys Val Ser Thr Arg Leu Arg Leu Ala Giu Arg Arg Gln Gln Arg 170 165 Leu Arg Glu Val Gln Ala Lys His Lys His Leu Cys Glu Glu Leu Ala 180 185 190 Glu Thr Gln Gly Arg Leu Met Leu Glu Pro Gly Arg Trp Leu Glu Gln
195 200 205 195 200 205 Phe Glu Val Asp Pro Glu Leu Glu Pro Glu Ser Ala Glu Tyr Leu Ala 215 220 Ala Leu Glu Arg Ala Thr Ala Ala Leu Glu Gln Cys Val Asn Leu Cys 230 235 Lys Ala His Val Met Wet Val Thr Cys Phe Asp Ile Ser Val Ala Ala 250 245 Ser Ala Ala Ile Pro Gly Pro Gln Glu Val Asp Val 260 265 268

<210> 2066

<211> 111

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(111)

<223> Xaa = any amino acid or nothing

<400> 2066

Ser Pro Gly Tyr Gly Glu Asn Lys Phe Thr Val Thr Ser Xaa Asn Ile 10 Ala Val Pro Leu Cys Glu Met Asn Lys Ile Tyr Ser Tyr Tyr Ser Asp 25 Ser Ser Ser Ser Glu Arg Thr Met Asp Leu Val Leu Glu Met Cys Asn 40 Thr Asn Ser Ile His Trp Cys Gly Ile Ser Gly Arg Gln Leu Gly Lys 55 Leu His Pro Ser Ser Ser Leu Cys Leu Ala Leu Thr Leu Leu Ser Ser Val Gln Gly Leu Gln Ser Ile Ser Gly Leu Arg Leu Thr Asp Thr Phe 90 . 85 Leu Lys Arg Thr Tyr Glu Tyr Asp Asp Ile Ala Gln Val Cys Val 100 105 110 111

<210> 2067 <211> 152 <212> PRT <213> Homo sapiens

<400> 2067 Asn Ser Glu Asp Leu Leu Lys Tyr Phe Asn Pro Glu Ser Trp Gln Glu 1 . 5 10 Asp Leu Asp Asn Met Tyr Leu Asp Thr Pro Arg Tyr Arg Gly Arg Ser 20 25 30 Tyr His Asp Arg Lys Ser Lys Val Asp Leu Asp Arg Leu Asn Asp Asp 40 45 Ala Lys Arg Tyr Ser Cys Thr Pro Arg Asn Tyr Ser Val Asn Ile Arg 55 60 Glu Glu Leu Lys Leu Ala Asn Val Val Phe Phe Pro Arg Cys Leu Leu 65 70 75 Val Gln Arg Cys Gly Gly Asn Cys Gly Cys Gly Thr Val Asn Trp Arg 85 90 95 Ser Cys Thr Cys Asn Ser Gly Lys Thr Val Lys Lys Tyr His Glu Val Leu Gln Phe Glu Pro Gly His Ile Lys Arg Arg Gly Arg Ala Lys Thr 120 Met Ala Leu Val Asp Ile Gln Leu Asp His His Glu Arg Cys Asp Cys 130 135 Ile Cys Ser Ser Arg Pro Pro Arg 145 150 152

<210> 2068 <211> 74 <212> PRT <213> Homo sapiens

<210> 2069 <211> 110 <212> PRT <213> Homo sapiens

<210> 2070 <211> 217 <212> PRT <213> Homo sapiens

<400> 2070 Leu Pro Pro Ala Gln Ile Pro Glu Ala Trp Leu Leu Leu Ala Asn Val 5 10 Val Val Val Leu Ile Leu Val Pro Leu Lys Asp Arg Leu Ile Asp Pro 20 25 Leu Leu Arg Cys Lys Leu Leu Pro Ser Ala Leu Gln Lys Met Ala 40 45 Leu Gly Met Phe Phe Gly Phe Thr Ser Val Ile Val Ala Gly Val Leu 55 60 50 Clu Met Glu Arg Leu His Tyr Ile His His Asn Glu Thr Val Ser Gln 70 75 Gln Ile Gly Glu Val Leu Tyr Asn Ala Ala Pro Leu Ser Ile Trp Trp 85 90 95 Gln Ile Pro Gln Tyr Leu Leu Ile Gly Ile Ser Glu Ile Phe Ala Ser 105 100 Ile Pro Gly Leu Glu Phe Ala Tyr Ser Glu Ala Pro Arg Ser Met Gln 120 115 125 Gly Ala Ile Met Gly Ile Phe Phe Cys Leu Ser Gly Val Gly Ser Leu 140 135 Leu Gly Ser Ser Leu Val Ala Leu Leu Ser Leu Pro Gly Gly Trp Leu 145 150 155 His Cys Pro Lys Asp Phe Gly Asn Ile Asn Asn Cys Arg Met Asp Leu 170 165 Tyr Phe Phe Leu Leu Ala Gly Ile Gln Ala Val Thr Ala Leu Leu Phe 185 190 180 Val Trp Ile Ala Gly Arg Tyr Glu Arg Ala Ser Gln Gly Pro Ala Ser 200 205 195 His Ser Arg Phe Ser Arg Asp Arg Gly 215

<210> 2071 <211> 130 <212> PRT <213> Homo sapiens

<210> 2072 <211> 1268 <212> PRT <213> Homo sapiens

<400> 2072 Cys Pro Ser Leu Asp Ile Arg Ser Glu Val Ala Glu Leu Arg Gln Leu 10 Glu Asn Cys Ser Val Val Glu Gly His Leu Gln Ile Leu Leu Met Phe 25 20 Thr Ala Thr Gly Glu Asp Phe Arg Gly Leu Ser Phe Pro Arg Leu Thr 40 45 Gln Val Thr Asp Tyr Leu Leu Leu Phe Arg Val Tyr Gly Leu Glu Ser 55 60 Leu Arg Asp Leu Phe Pro Asn Leu Ala Val Ile Arg Gly Thr Arg Leu 70 75 Phe Leu Gly Tyr Ala Leu Val Ile Phe Glu Met Pro His Leu Arg Asp 85 90 Val Ala Leu Pro Ala Leu Gly Ala Val Leu Arg Gly Ala Val Arg Val 100 105 Glu Lys Asn Gln Glu Leu Cys His Leu Ser Thr Ile Asp Trp Gly Leu 120 125 Leu Gln Pro Ala Pro Gly Ala Asn His Ile Val Gly Asn Lys Leu Gly 135 140 Glu Glu Cys Ala Asp Val Cys Pro Gly Val Leu Gly Ala Ala Gly Glu 145 150 155 160 150 Pro Cys Ala Lys Thr Thr Phe Ser Gly His Thr Asp Tyr Arg Cys Trp . 165 170 Thr Ser Ser His Cys Gln Arg Val Cys Pro Cys Pro His Gly Met Ala 190 185 180 Cys Thr Ala Arg Gly Glu Cys Cys His Thr Glu Cys Leu Gly Gly Cys 200 205 Ser Gln Pro Glu Asp Pro Arg Ala Cys Val Ala Cys Arg His Leu Tyr 210 215 220 Phe Gln Gly Ala Cys Leu Trp Ala Cys Pro Pro Gly Thr Tyr Gln Tyr 235 230 Glu Ser Trp Arg Cys Val Thr Ala Glu Arg Cys Ala Ser Leu His Ser 245 250 Val Pro Gly Arg Ala Ser Thr Phe Gly Ile His Gln Gly Ser Cys Leu 260 265 270 Ala Gln Cys Pro Ser Gly Phe Thr Arg Asn Ser Ser Ser Ile Phe Cys 280 285 His Lys Cys Glu Gly Leu Cys Pro Lys Glu Cys Lys Val Gly Thr Lys 295 300 Thr Ile Asp Ser Ile Gln Ala Ala Gln Asp Leu Val Gly Cys Thr His 310 315 Val Glu Gly Ser Leu Ile Leu Asn Leu Arg Gln Gly Tyr Asn Leu Glu 330 335 325 Pro Gln Leu Gln His Ser Leu Gly Leu Val Glu Thr Ile Thr Gly Phe 345 350

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Leu Lys Ile Lys His Ser Phe Ala Leu Val Ser Leu Gly Phe Phe Lys
                           360
Asn Leu Lys Leu Ile Arg Gly Asp Ala Met Val Asp Gly Asn Tyr Thr
                       375
                                           380
Leu Tyr Val Leu Asp Asn Gln Asn Leu Gln Gln Leu Gly Ser Trp Val
                   390
                                       395
Ala Ala Gly Leu Thr Ile Pro Val Gly Lys Ile Tyr Phe Ala Phe Asn
               405
                                   410
Pro Arg Leu Cys Leu Glu His Ile Tyr Arg Leu Glu Glu Val Thr Gly
          420
                              425
Thr Arg Gly Arg Gln Asn Lys Ala Glu Ile Asn Pro Arg Thr Asn Gly
                          440
                                               445
Asp Arg Ala Ala Cys Gln Thr Arg Thr Leu Arg Phe Val Ser Asn Val
                       455
                                           460
Thr Glu Ala Asp Arg Ile Leu Leu Arg Trp Glu Arg Tyr Glu Pro Leu
                 470
                                       475
Glu Ala Arg Asp Leu Leu Ser Phe Ile Val Tyr Tyr Lys Glu Ser Pro
               485
                                   490
Phe Gln Asn Ala Thr Glu His Val Gly Pro Asp Ala Cys Gly Thr Gln
                                                  510
                               505
Ser Trp Asn Leu Leu Asp Val Glu Leu Pro Leu Ser Arg Thr Gln Glu
                          520
      515
Pro Gly Val Thr Leu Ala Ser Leu Lys Pro Trp Thr Gln Tyr Ala Val
                                           540
                      535
  530
Phe Val Arg Ala Ile Thr Leu Thr Thr Glu Glu Asp Ser Pro His Gln
                   550
                                       555
Gly Ala Gln Ser Pro Ile Val Tyr Leu Arg Thr Leu Pro Ala Ala Pro
                                   570
Thr Val Pro Gln Asp Val Ile Ser Thr Ser Asn Ser Ser Ser His Leu
                               585
           580
Leu Val Arg Trp Lys Pro Pro Thr Gln Arg Asn Gly Asn Leu Thr Tyr
                           600
      595
Tyr Leu Val Leu Trp Gln Arg Leu Ala Glu Asp Gly Asp Leu Tyr Leu
                     615
                                           620
Asn Asp Tyr Cys His Arg Gly Leu Arg Leu Pro Thr Ser Asn Asn Asp
                   630
Pro Arg Phe Asp Gly Glu Asp Gly Asp Pro Glu Ala Glu Met Glu Ser
               645
                                   650
Asp Cys Cys Pro Cys Gln His Pro Pro Pro Gly Gln Val Leu Pro Pro
           660
                               665
Leu Glu Ala Gln Glu Ala Ser Phe Gln Lys Lys Phe Glu Asn Phe Leu
                           680
                                              685
His Asn Ala Ile Thr Ile Pro Ile Ser Pro Trp Lys Val Thr Ser Ile
                      695
Asn Lys Ser Pro Gln Arg Asp Ser Gly Arg His Arg Arg Ala Ala Gly
                                       715
                  710
Pro Leu Arg Leu Gly Gly Asn Ser Ser Asp Phe Glu Ile Gln Glu Asp
               725
                                   730
Lys Val Pro Arg Glu Arg Ala Val Leu Ser Gly Leu Arg His Phe Thr
                               745
Glu Tyr Arg Ile Asp Ile His Ala Cys Asn His Ala Ala His Thr Val
                           760
                                               765
Gly Cys Ser Ala Ala Thr Phe Val Phe Ala Arg Thr Met Pro His Arg
                       775
                                           780
Glu Ala Asp Gly Ile Pro Gly Lys Val Ala Trp Glu Ala Ser Ser Lys
                   790
                                       795
Asn Ser Val Leu Leu Arg Trp Leu Glu Pro Pro Asp Pro Asn Gly Leu
               805
                                   810
Ile Leu Lys Tyr Glu Ile Lys Tyr Arg Arg Leu Gly Glu Glu Ala Thr
                              825
Val Leu Cys Val Ser Arg Leu Arg Tyr Ala Lys Phe Gly Gly Val His
                           840
Leu Ala Leu Leu Pro Pro Gly Asn Tyr Ser Ala Arg Val Arg Ala Thr
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Ser Leu Ala Gly Asn Gly Ser Trp Thr Asp Ser Val Ala Phe Tyr Ile
              870 . 875
B65
Leu Gly Pro Glu Glu Glu Asp Ala Gly Gly Leu His Val Leu Leu Thr
                                 895
                          890
            885
Ala Thr Pro Val Gly Leu Thr Leu Leu Ile Val Leu Ala Ala Leu Gly 900 905 910
                       905
Phe Phe Tyr Gly Lys Lys Arg Asn Arg Thr Leu Tyr Ala Ser Val Asn 915 920 925
            920
Pro Glu Tyr Phe Ser Ala Ser Asp Met Tyr Val Pro Asp Glu Trp Glu
         935 940
Val Pro Arg Glu Gln Ile Ser Ile Ile Arg Glu Leu Gly Gln Gly Ser
       950 955
Phe Gly Met Val Tyr Glu Gly Leu Ala Arg Gly Leu Glu Ala Gly Glu
           965
                          970
                                         975
Glu Ser Thr Pro Val Ala Leu Lys Thr Val Asn Glu Leu Ala Ser Pro
        980
                       985
                                       990
Arg Glu Cys Ile Glu Phe Leu Lys Glu Ala Ser Val Met Lys Ala Phe
    995 1000 1005
Lys Cys His His Val Val Arg Leu Leu Gly Val Val Ser Gln Gly Gln
 1010 . 1015 1020
Pro Thr Leu Val Ile Met Glu Leu Met Thr Arg Gly Asp Leu Lys Ser
    1030 1035
1025
His Leu Arg Ser Leu Arg Pro Glu Ala Glu Asn Asn Pro Gly Leu Pro
                          1050
          1045
Gln Pro Ala Leu Gly Glu Met Ile Gln Met Ala Gly Glu Ile Ala Asp
       1060 1065
                                     1070
Gly Met Ala Tyr Leu Ala Ala Asn Lys Phe Val His Arg Asp Leu Ala
    1075 1080 1085
Ala Arg Asn Cys Met Val Ser Gln Asp Phe Thr Val Lys Ile Gly Asp
          1095 1100
Phe Gly Met Thr Arg Asp Val Tyr Glu Thr Asp Tyr Tyr Arg Lys Gly
       1110 1115
Gly Lys Gly Leu Leu Pro Val Arg Trp Met Ala Pro Glu Ser Leu Lys
           1125 1130 1135
Asp Gly Ile Phe Thr Thr His Ser Asp Val Trp Ser Phe Gly Val Val
       1140 1145
                                     1150
Leu Trp Glu Ile Val Thr Leu Ala Glu Gln Pro Tyr Gln Gly Leu Ser
 1155 1160 1165
Asn Glu Gln Val Leu Lys Phe Val Met Asp Gly Gly Val Leu Glu Glu
1170 1175 1180
Leu Glu Gly Cys Pro Leu Gln Leu Gln Glu Leu Met Ser Arg Cys Trp
       1190 1195
1185
Gln Pro Asn Pro Arg Leu Arg Pro Ser Phe Thr His Ile Leu Asp Ser
                          1210
           1205
                                         1215
Ile Gln Glu Glu Leu Arg Pro Ser Phe Arg Leu Leu Ser Phe Tyr Tyr
        1220 1225 1230
Ser Pro Glu Cys Arg Gly Ala Arg Gly Ser Leu Pro Thr Thr Asp Ala
    1235 1240 1245
Glu Pro Asp Ser Ser Pro Thr Pro Arg Asp Cys Ser Pro Gln Asn Gly
             1255
                         1260
  1250
Gly Pro Gly His
1265 1268
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<210> 2073 <211> 72 <212> PRT <213> Homo sapiens

<400> 2073
Leu Ala Trp Ile Asp Asn Ile Leu Pro Glu Lys Glu Lys Glu Thr
1 5 10 . 15

<210> 2074 <211> 1098 <212> PRT <213> Homo sapiens

<400> 2074 Ala Arg Gly Arg Arg Ser Arg Pro Val Trp Ala Ala Ser Trp Gly Gly Arg Gly Arg Pro Ala Ala Arg Arg Arg Pro Arg Gly Leu Ala Ala Thr Met Gly Phe Glu Leu Asp Arg Phe Asp Gly Asp Val Asp Pro Asp Leu Lys Cys Ala Leu Cys His Lys Val Leu Glu Asp Pro Leu Thr Thr Pro . 55 Cys Gly His Val Phe Cys Ala Gly Cys Val Leu Pro Trp Val Val Gln Glu Gly Ser Cys Pro Ala Arg Cys Arg Gly Arg Leu Ser Ala Lys Glu Leu Asn His Val Leu Pro Leu Lys Arg Leu Ile Leu Lys Leu Asp Ile Lys Cys Ala Tyr Ala Thr Arg Gly Cys Gly Arg Val Val Lys Leu Gln Gln Leu Pro Glu His Leu Glu Arg Cys Asp Phe Ala Pro Ala Arg Cys Arg His Ala Gly Cys Gly Gln Val Leu Leu Arg Arg Asp Val Glu Ala His Met Arg Asp Ala Cys Asp Ala Arg Pro Val Gly Arg Cys Gln Glu Gly Cys Gly Leu Pro Leu Thr His Gly Glu Gln Arg Ala Gly Gly His Cys Cys Ala Arg Ala Leu Arg Ala His Asn Gly Ala Leu Gln Ala Arg Leu Gly Ala Leu His Lys Ala Leu Lys Lys Glu Ala Leu Arg Ala Gly Lys Arg Glu Lys Ser Leu Val Ala Gln Leu Ala Ala Gln Leu Glu Leu Gln Met Thr Ala Leu Arg Tyr Gln Lys Lys Phe Thr Glu Tyr Ser Ala Arg Leu Asp Ser Leu Ser Arg Cys Val Ala Ala Pro Pro Gly Gly Lys Gly Glu Glu Thr Lys Ser Leu Thr Leu Val Leu His Arg Asp Ser Gly Ser Leu Gly Phe Asn Ile Ile Gly Gly Arg Pro Ser Val Asp Asn His Asp Gly Ser Ser Ser Glu Gly Ile Phe Val Ser Lys Ile Val Asp Ser Gly Pro Ala Ala Lys Glu Gly Gly Leu Gln Ile His Asp Arg Ile Ile Glu Val Asn Gly Arg Asp Leu Ser Arg Ala Thr His Asp Gln Ala Val Glu Ala Phe Lys Thr Ala Lys Glu Pro Ile Val Val Gln Val Leu

Arg Arg Thr Pro Arg Thr Lys Met Phe Thr Pro Pro Ser Glu Ser Gln Leu Val Asp Thr Gly Thr Gln Thr Asp Ile Thr Phe Glu His Ile Met Ala Leu Thr Lys Met Ser Ser Pro Ser Pro Pro Val Leu Asp Pro Tyr Leu Leu Pro Glu Glu His Pro Ser Ala His Glu Tyr Tyr Asp Pro Asn Asp Tyr Ile Gly Asp Ile His Gln Glu Met Asp Arg Glu Glu Leu Glu Leu Glu Glu Val Asp Leu Tyr Arg Met Asn Ser Gln Asp Lys Leu Gly Leu Thr Val Cys Tyr Arg Thr Asp Asp Glu Asp Asp Ile Gly Ile Tyr Ile Ser Glu Ile Asp Pro Asn Ser Ile Ala Ala Lys Asp Gly Arg Ile Arg Glu Gly Asp Arg Ile Ile Gln Ile Asn Gly Ile Glu Val Gln Asn Arg Glu Glu Ala Val Ala Leu Leu Thr Ser Glu Glu Asn Lys Asn Phe Ser Leu Leu Ile Ala Arg Ala Glu Leu Gln Leu Asp Glu Gly Trp Met Asp Asp Asp Arg Asn Asp Phe Leu Asp Asp Leu His Met Asp Met Leu Glu Glu Gln His His Gln Ala Met Gln Phe Thr Ala Ser Val Leu Gln Gln Lys Lys His Asp Glu Asp Gly Gly Thr Thr Asp Thr Ala Thr Ile Leu Ser Asn Gln His Glu Lys Asp Ser Gly Val Gly Arg Thr Asp Glu Ser Thr Arg Asn Asp Glu Ser Ser Glu Gln Glu Asn Asn Gly Asp Asp Ala Thr Ala Ser Ser Asn Pro Leu Ala Gly Gln Arg Lys Leu Thr Cys Ser Gln Asp Thr Leu Gly Ser Gly Asp Leu Pro Phe Ser Asn Glu Ser Phe Ile Ser Ala Asp Cys Thr Asp Ala Asp Tyr Leu Gly Ile Pro Val Asp Glu Cys Glu Arg Phe Arg Glu Leu Leu Glu Leu Lys Cys Gln Val Lys Ser Ala Thr Pro Tyr Gly Leu Tyr Tyr Pro Ser Gly Pro Leu Asp Ala Gly Lys Ser Asp Pro Glu Ser Val Asp Lys Glu Leu Glu Leu Leu Asn Glu Glu Leu Arg Ser Ile Glu Leu Glu Cys Leu Ser Ile Val Arg Ala His Lys Met Gln Gln Leu Lys Glu Gln Tyr Arg Glu Ser Trp Met Leu His Asn Ser Gly Phe Arg Asn Tyr Asn Thr Ser Ile Asp Val Arg Arg His Glu Leu Ser Asp Ile Thr Glu Leu Pro Glu Lys Ser Asp Lys Asp Ser Ser Ser Ala Tyr Asn Thr Gly Glu Ser Cys Arg Ser Thr Pro Leu Thr Leu Glu Ile Ser Pro Asp Asn Ser Leu Arg Arg Ala Ala Glu Gly Ile Ser Cys Pro Ser Ser Glu Gly Ala Val Gly Thr Thr Glu Ala Tyr Gly Pro Ala Ser Lys Asn Leu Leu Ser Ile Thr Glu Asp Pro Glu Val Gly Thr Pro Thr Tyr Ser Pro Ser Leu Lys Glu Leu Asp Pro Asn Gln Pro Leu Glu Ser Lys Glu Arg Arg Ala Ser Asp Gly Ser Arg Ser

Pro Thr Pro Ser Gln Lys Leu Gly Ser Ala Tyr Leu Pro Ser Tyr His 885 890 His Ser Pro Tyr Lys His Ala His Ile Pro Ala His Ala Gln His Tyr 900 905 910 Gln Ser Tyr Met Gln Leu Ile Gln Gln Lys Ser Ala Val Glu Tyr Ala 920 925 Gln Ser Gln Met Ser Leu Val Ser Met Cys Lys Asp Leu Ser Ser Pro 935 940 Thr Pro Ser Glu Pro Arg Met Glu Trp Lys Val Lys Ile Arg Ser Asp 955 950 Gly Thr Arg Tyr Ile Thr Lys Arg Pro Val Arg Asp Arg Leu Leu Arg 965 970 975 Glu Arg Ala Leu Lys Ile Arg Glu Glu Arg Ser Gly Met Thr Thr Asp 980 985 Asp Asp Ala Val Ser Glu Met Lys Met Gly Arg Tyr Trp Ser Lys Glu 995 1000 1005 Glu Arg Lys Gln His Leu Val Lys Ala Lys Glu Gln Arg Arg Arg 1010 1015 1020 Glu Phe Met Met Gln Ser Arg Leu Asp Cys Leu Lys Glu Gln Gln Ala 1025 1030 1035 Ala Asp Asp Arg Lys Glu Met Asn Ile Leu Glu Leu Ser His Lys Lys 1045 1050 1055 Met Met Lys Lys Arg Asn Lys Lys Ile Phe Asp Asn Trp Met Thr Ile 1060 1065 1070 Gln Glu Leu Leu Thr His Gly Thr Lys Ser Pro Asp Gly Thr Arg Val 1075 1080 Tyr Asn Ser Phe Leu Ser Val Thr Thr Val 1098 1095 1090

<210> 2075 <211> 588 <212> PRT <213> Homo sapiens

<400> 2075 Gln Ile Ser Thr Glu Val Ser Glu Ala Pro Val Ala Asn Asp Lys Pro 1 5 10 Lys Thr Leu Val Val Lys Val Gln Lys Lys Ala Ala Asp Leu Pro Asp 20 25 Arg Asp Thr Trp Lys Gly Arg Phe Asp Phe Leu Met Ser Cys Val Gly 40 Tyr Ala Ile Gly Leu Gly Asn Val Trp Arg Phe Pro Tyr Leu Cys Gly 55 Lys Asn Gly Gly Gly Ala Phe Leu Ile Pro Tyr Phe Leu Thr Leu Ile 65 70 75 80 Phe Ala Gly Val Pro Leu Phe Leu Leu Glu Cys Ser Leu Gly Gln Tyr 90 85 Thr Ser Ile Gly Gly Leu Gly Val Trp Lys Leu Ala Pro Met Phe Lys 105 100 Gly Val Gly Leu Ala Ala Ala Val Leu Ser Phe Trp Leu Asn Ile Tyr 115 120 125 Tyr Ile Val Ile Ile Ser Trp Ala Ile Tyr Tyr Leu Tyr Asn Ser Phe 140 135 Thr Thr Thr Leu Pro Trp Lys Gln Cys Asp Asn Pro Trp Asn Thr Asp 155 150 Arg Cys Phe Ser Asm Tyr Ser Met Val Asm Thr Thr Asm Met Thr Ser 170 165 Ala Val Val Glu Phe Trp Glu Arg Asn Met His Gln Met Thr Asp Gly 185 190 180 Leu Asp Lys Pro Gly Gln Ile Arg Trp Pro Leu Ala Ile Thr Leu Ala 200

Ile Ala Trp Ile Leu Val Tyr Phe Cys Ile Trp Lys Gly Val Gly Trp 210 215 220 Thr Gly Lys Val Val Tyr Phe Ser Ala Thr Tyr Pro Tyr Ile Met Leu 230 235 Ile Ile Leu Phe Phe Arg Gly Val Thr Leu Pro Gly Ala Lys Glu Gly 250 245 255 Ile Leu Phe Tyr Ile Thr Pro Asn Phe Arg Lys Leu Ser Asp Ser Glu 260 265 270 Val Trp Leu Asp Ala Ala Thr Gln Ile Phe Phe Ser Tyr Gly Leu Gly 275 280 Leu Gly Ser Leu Ile Ala Leu Gly Ser Tyr Asn Ser Phe His Asn Asn 290 295 300 Val Tyr Arg Asp Ser Ile Ile Val Cys Cys Ile Asn Ser Cys Thr Ser 305 310 315 320 Met Phe Ala Gly Phe Val Ile Phe Ser Ile Val Gly Phe Met Ala His 325 330 Val Thr Lys Arg Ser Ile Ala Asp Val Ala Ala Ser Gly Pro Gly Leu 340 345 350 Ala Phe Leu Ala Tyr Pro Glu Ala Val Thr Gln Leu Pro Ile Ser Pro 355 360 365 Leu Trp Ala Ile Leu Phe Phe Ser Met Leu Leu Met Leu Gly Ile Asp 370 375 380 Ser Gln Phe Cys Thr Val Glu Gly Phe Ile Thr Ala Leu Val Asp Glu 390 395 Tyr Pro Arg Leu Leu Arg Asn Arg Arg Glu Leu Phe Ile Ala Ala Val 410 Cys Ile Ile Ser Tyr Leu Ile Gly Leu Ser Asn Ile Thr Gln Gly Gly 425 420 430 Ile Tyr Val Phe Lys Leu Phe Asp Tyr Tyr Ser Ala Ser Gly Met Ser 435 440 445 Leu Leu Phe Leu Val Phe Phe Glu Cys Val Ser Ile Ser Trp Phe Tyr 460 455 Gly Val Asn Arg Phe Tyr Asp Asn Ile Gln Glu Met Val Gly Ser Arg 465 470 480 481 Pro Cys Ile Trp Trp Lys Leu Cys Trp Ser Phe Phe Thr Pro Ile Ile 490 Val Ala Gly Val Phe Ile Phe Ser Ala Val Gln Met Thr Pro Leu Thr 500 505 510 Met Gly Asn Tyr Val Phe Pro Lys Trp Gly Gln Gly Val Gly Trp Leu 515 520 525 Phe Leu Thr Leu Lys Gly Ser Leu Lys Gln Arg Ile Gln Val Met Val 545 550 555 Gln Pro Ser Glu Asp Ile Val Arg Pro Glu Asn Gly Pro Glu Gln Pro 565 570 Gln Ala Gly Ser Ser Thr Ser Lys Glu Ala Tyr Ile 585 588

<210> 2076 <211> 89 <212> PRT

<213> Homo sapiens

Lys Lys Phe Ile Ile Ala Asn Ala Arg Val Gln Asn Cys Ala Ile Ile
50 55 60

Tyr Cys Asn Asp Gly Phe Cys Glu Met Thr Gly Phe Ser Arg Pro Asp
65 70 75 80

Val Met Gln Lys Pro Cys Thr Cys Asp
85 89

<210> 2077 <211> 90 <212> PRT <213> Homo sapiens

<210> 2078 <211> 417 <212> PRT <213> Homo sapiens

<400> 2078 Ile Gln Ala Ser Arg Ala Ser Pro Tyr Pro Arg Val Lys Val Asp Phe 10 Ala Leu Ser Cys His Glu Asp Leu Leu Ala Pro Ile Ser Glu Pro Ile Glu Trp Lys Tyr His Ser Pro Glu Glu Glu Ile Ser Leu Gly Pro Ala 35 40 Cys Trp Leu Trp Asp Phe Leu Arg Arg Ser Gln Gln Ala Gly Phe Leu 55 60 Leu Pro Leu Ser Gly Gly Val Asp Ser Ala Ala Thr Ala Cys Leu Ile 70 75 Tyr Ser Met Cys Cys Gln Val Cys Glu Ala Val Arg Ser Gly Asn Glu 90 Glu Val Leu Ala Asp Val Arg Thr Ile Val Asn Gln Ile Ser Tyr Thr 100 105 110 Pro Gln Asp Pro Arg Asp Leu Cys Gly Arg Ile Leu Thr Thr Cys Tyr 120 125 Met Ala Ser Lys Asn Ser Ser Gln Glu Thr Cys Thr Arg Ala Arg Glu 135 Leu Ala Gln Gln Ile Gly Ser His His Ile Ser Leu Asn Ile Asp Pro 150 155 Ala Val Lys Ala Val Met Gly Ile Phe Ser Leu Val Thr Gly Lys Ser 165 170 Pro Leu Phe Ala Ala His Gly Gly Ser Ser Arg Glu Asn Leu Ala Leu 185 Gln Asn Val Gln Ala Arg Ile Arg Met Val Leu Ala Tyr Leu Phe Ala 200

Gln Leu Ser Leu Trp Ser Arg Gly Val His Gly Gly Leu Leu Val Leu 215 220 Gly Ser Ala Asn Val Asp Glu Ser Leu Leu Gly Tyr Leu Thr Lys Tyr 230 235 Asp Cys Ser Ser Ala Asp Ile Asn Pro Ile Gly Gly Ile Ser Lys Thr 245 250 255 Asp Leu Arg Ala Phe Val Gln Phe Cys Ile Gln Arg Phe Gln Leu Pro 265 260 Ala Leu Gln Ser Ile Leu Leu Ala Pro Ala Thr Ala Glu Leu Glu Pro 280 285 Leu Ala Asp Gly Gln Val Ser Gln Thr Asp Glu Glu Asp Met Gly Met 290 295 300 Thr Tyr Ala Glu Leu Ser Val Tyr Gly Lys Leu Arg Lys Val Ala Lys 310 315 Met Gly Pro Tyr Ser Met Phe Cys Lys Leu Leu Gly Met Trp Arg His 330 335 325 Ile Cys Thr Pro Arg Gln Val Ala Asp Lys Val Lys Arg Phe Phe Ser 345 340 Lys Tyr Ser Met Asn Arg His Lys Met Thr Thr Leu Thr Pro Ala Tyr 365 360 His Ala Glu Asn Tyr Ser Pro Glu Asp Asn Arg Phe Asp Leu Arg Pro 370 380 375 Phe Leu Tyr Asn Thr Ser Trp Pro Trp Gln Phe Arg Cys Ile Glu Asn 385 390 395 Gln Val Leu Gln Leu Glu Arg Ala Glu Pro Gln Ser Leu Asp Gly Val 410 Asp 417

<210> 2079 <211> 1992 <212> PRT <213> Homo sapiens

<400> 2079 Pro Gly Cys Ala Ala Arg Leu Ser Arg Ala Arg Ala Pro Gly Pro Gly 5 · 10 Ala Ala Gly Ala Gly Arg Lys Arg Leu Ala Asp Pro Gly Pro Pro Pro 20 25 Ala Ser Arg Arg Leu Arg Ala Pro Gly Ser Arg Pro Arg Leu Ala Pro 4.5 35 40 Cys Thr Arg Arg Ala Ala Gln Pro Ala His Ala Arg Met Ala Pro Arg 55 Ala Ala Gly Gly Ala Pro Leu Ser Ala Arg Ala Ala Ala Ser Pro 75 70 Pro Pro Phe Gln Thr Pro Pro Arg Cys Pro Val Pro Leu Leu Leu 90 85 Leu Leu Leu Gly Ala Ala Arg Ala Gly Ala Leu Glu Ile Gln Arg Arg 100 105 110 Phe Pro Ser Pro Thr Pro Thr Asn Asn Phe Ala Leu Asp Gly Ala Ala 125 120 Gly Thr Val Tyr Leu Ala Ala Val Asn Arg Leu Tyr Gln Leu Ser Gly 135 140 Ala Asn Leu Ser Leu Glu Ala Glu Ala Ala Val Gly Pro Val Pro Asp 150 155 Ser Pro Leu Cys His Ala Pro Gln Leu Pro Gln Ala Ser Cys Glu His 165 170 Pro Arg Arg Leu Thr Asp Asn Tyr Asn Lys Ile Leu Gln Leu Asp Pro 180 185 Gly Gln Gly Leu Val Val Cys Gly Ser Ile Tyr Gln Gly Phe Cys 200

Gln Leu Arg Arg Arg Gly Asn Ile Ser Ala Val Ala Val Arg Phe Pro Pro Ala Ala Pro Pro Ala Glu Pro Val Thr Val Phe Pro Ser Met Leu Asn Val Ala Ala Asn His Pro Asn Ala Ser Thr Val Gly Leu Val Leu Pro Pro Ala Ala Gly Ala Gly Gly Ser Arg Leu Leu Val Gly Ala Thr Tyr Thr Gly Tyr Gly Ser Ser Phe Phe Pro Arg Asn Arg Ser Leu Glu Asp His Arg Phe Glu Asn Thr Pro Glu Ile Ala Ile Arg Ser Leu Asp Thr Arg Gly Asp Leu Ala Lys Leu Phe Thr Phe Asp Leu Asn Pro Ser Asp Asp Asn Ile Leu Lys Ile Lys Gln Gly Ala Lys Glu Gln His Lys Leu Gly Phe Val Ser Ala Phe Leu His Pro Ser Asp Pro Pro Pro Gly Ala Gln Ser Tyr Ala Tyr Leu Ala Leu Asn Ser Glu Ala Arg Ala Gly Asp Lys Glu Ser Gln Ala Arg Ser Leu Leu Ala Arg Ile Cys Leu Pro His Gly Ala Gly Gly Asp Ala Lys Lys Leu Thr Glu Ser Tyr Ile Gln Leu Gly Leu Gln Cys Ala Gly Gly Ala Gly Arg Gly Asp Leu Tyr Ser Arg Leu Val Ser Val Phe Pro Ala Arg Glu Arg Leu Phe Ala Val Phe Glu Arg Pro Gln Gly Ser Pro Ala Ala Arg Ala Ala Pro Ala Ala Leu Cys Ala Phe Arg Phe Ala Asp Val Arg Ala Ala Ile Arg Ala Ala Arg Thr Ala Cys Phe Val Glu Pro Ala Pro Asp Val Val Ala Val Leu Asp Ser Val Val Gln Gly Thr Gly Pro Ala Cys Glu Arg Lys Leu Asn Ile Gln Leu Gln Pro Glu Gln Leu Asp Cys Gly Ala Ala His Leu Gln His Pro Leu Ser Ile Leu Gln Pro Leu Lys Ala Thr Pro Val Phe Arg Ala Pro Gly Leu Thr Ser Val Ala Val Ala Ser Val Asn Asn Tyr Thr Ala Val Phe Leu Gly Thr Val Asn Gly Arg Leu Leu Lys Ile Asn Leu Asn Glu Ser Met Gln Val Val Ser Arg Arg Val Val Thr Val Ala Tyr Gly Glu Pro Val His His Val Met Gln Phe Asp Pro Ala Asp Ser Gly Tyr Leu Tyr Leu Met Thr Ser His Gln Met Ala Arg Val Lys Val Ala Ala Cys Asn Val His Ser Thr Cys Gly Asp Cys Val Gly Ala Ala Asp Ala Tyr Cys Gly Trp Cys Ala Leu Glu Thr Arg Cys Thr Leu Gln Gln Asp Cys Thr Asn Ser Ser Gln Gln His Phe Trp Thr Ser Ala Ser Glu Gly Pro Ser Arg Cys Pro Ala Met Thr Val Leu Pro Ser Glu Ile Asp Val Arg Gln Glu Tyr Pro Gly Met Ile Leu Gln Ile Ser Gly Ser Leu Pro Ser Leu Ser Gly Met Glu Met Ala Cys Asp Tyr Gly Asn Asn Ile Arg Thr Val Ala Arg Val Pro Gly Pro Ala Phe Gly His Gln Ile Ala Tyr 

Cys Asn Leu Leu Pro Arg Asp Gln Phe Pro Pro Phe Pro Pro Asn Gln 730 735 725 Asp His Val Thr Val Glu Met Ser Val Arg Val Asn Gly Arg Asn Ile 750 740 745 Val Lys Ala Asn Phe Thr Ile Tyr Asp Cys Ser Arg Thr Ala Gln Val 760 765 755 Tyr Pro His Thr Ala Cys Thr Ser Cys Leu Ser Ala Gln Trp Pro Cys 775 780 Phe Trp Cys Ser Gln Gln His Ser Cys Val Ser Asn Gln Ser Arg Cys 790 795 Glu Ala Ser Pro Asn Pro Thr Ser Pro Gln Asp Cys Pro Arg Thr Leu 810 815 805 Leu Ser Pro Leu Ala Pro Val Pro Thr Gly Gly Ser Gln Asn Ile Leu 820 825 Val Pro Leu Ala Asn Thr Ala Phe Phe Gln Gly Ala Ala Leu Glu Cys 840 835 Ser Phe Gly Leu Glu Glu Ile Phe Glu Ala Val Trp Val Asn Glu Ser 855 860 Val Val Arg Cys Asp Gln Val Val Leu His Thr Thr Arg Lys Ser Gln 875 880 870 Val Phe Pro Leu Ser Leu Gln Leu Lys Gly Arg Pro Ala Arg Phe Leu 885 890 Asp Ser Pro Glu Pro Met Thr Val Met Val Tyr Asn Cys Ala Met Gly 905 900 Ser Pro Asp Cys Ser Gln Cys Leu Gly Arg Glu Asp Leu Gly His Leu 925 920 915 Cys Met Trp Ser Asp Gly Cys Arg Leu Arg Gly Pro Leu Gln Pro Met 940 935 Ala Gly Thr Cys Pro Ala Pro Glu Ile Arg Ala Ile Glu Pro Leu Ser 950 955 Gly Pro Leu Asp Gly Gly Thr Leu Leu Thr Ile Arg Gly Arg Asn Leu 970 965 Gly Arg Arg Leu Ser Asp Val Ala His Gly Val Trp Ile Gly Gly Val 990 980 985 Ala Cys Glu Pro Leu Pro Asp Arg Tyr Thr Val Ser Glu Glu Ile Val 995 1000 1005 Cys Val Thr Gly Pro Ala Pro Gly Pro Leu Ser Gly Val Val Thr Val 1010 1015 1020 Asn Ala Ser Lys Glu Gly Lys Ser Arg Asp Arg Phe Ser Tyr Val Leu .025 1030 1035 1040 Pro Leu Val His Ser Leu Glu Pro Thr Met Gly Pro Lys Ala Gly Gly 1045 1050 1055 Thr Arg Ile Thr Ile His Gly Asn Asp Leu His Val Gly Ser Glu Leu 1060 1065 Gln Val Leu Val Asn Asp Thr Asp Pro Cys Thr Glu Leu Met Arg Thr 1075 1080 1085 Asp Thr Ser Ile Ala Cys Thr Met Pro Glu Gly Ala Leu Pro Ala Pro 1095 1100 Val Pro Val Cys Val Arg Phe Glu Arg Arg Gly Cys Val His Gly Asn 1110 1115 1120 Leu Thr Phe Trp Tyr Met Gln Asn Pro Val Ile Thr Ala Ile Ser Pro 1125 1130 1135 Arg Arg Ser Pro Val Ser Gly Gly Arg Thr Ile Thr Val Ala Gly Glu 1140 1145 1150 Arg Phe His Met Val Gln Asn Val Ser Met Ala Val His His Ile Gly 1155 1160 1165 Arg Glu Pro Thr Leu Cys Lys Val Leu Asn Ser Thr Leu Ile Thr Cys 1175 1180 1170 Pro Ser Pro Gly Ala Leu Ser Asn Ala Ser Ala Pro Val Asp Phe Phe 1190 1195 Ile Asn Gly Arg Ala Tyr Ala Asp Glu Val Ala Val Ala Glu Glu Leu 1210 1215 1205 Leu Asp Pro Glu Glu Ala Gln Arg Gly Ser Arg Phe Arg Leu Asp Tyr 1220 1225

Leu Pro Asn Pro Gln Phe Ser Thr Ala Lys Arg Glu Lys Trp Ile Lys 1240 1235 His His Pro Gly Glu Pro Leu Thr Leu Val Ile His Val Ser Thr Lys 1255 1260 Gly Ala Gly Lys Glu Gln Asp Ser Leu Gly Leu Gln Ser His Glu Tyr 1275 1270 Arg Val Lys Ile Gly Gln Val Ser Cys Asp Ile Gln Ile Val Ser Asp 1285 1290 1295 Arg Ile Ile His Cys Ser Val Asn Glu Ser Leu Gly Ala Ala Val Gly 1310 1300 1305 Gln Leu Pro Ile Thr Ile Gln Val Gly Asn Phe Asn Gln Thr Ile Ala 1320 1325 1315 Thr Leu Gln Leu Gly Gly Ser Glu Thr Ala Ile Ile Val Ser Ile Val 1330 1335 1340 Ile Cys Ser Val Leu Leu Leu Ser Val Val Ala Leu Phe Val Phe 1355 1360 1350 Cys Thr Lys Ser Arg Arg Ala Glu Arg Tyr Trp Gln Lys Thr Leu Leu 1365 1370 Gln Met Glu Glu Met Glu Ser Gln Ile Arg Glu Glu Ile Arg Lys Gly 1380 1385 1390 Phe Ala Glu Leu Gln Thr Asp Met Thr Asp Leu Thr Lys Glu Leu Asn 1400 1395 1405 Arg Ser Gln Gly Ile Pro Phe Leu Glu Tyr Lys His Phe Val Thr Arg 1410 1415 1420 Thr Phe Phe Pro Lys Cys Ser Ser Leu Tyr Glu Glu Arg Tyr Val Leu 1430 1435 1425 Pro Ser Gln Thr Leu Asn Ser Gln Gly Ser Ser Gln Ala Gln Glu Thr 1445 1450 1455 His Pro Leu Leu Gly Glu Trp Lys Ile Pro Glu Ser Cys Arg Pro Asn 1460 1465 1470 Met Glu Glu Gly Ile Ser Leu Phe Ser Ser Leu Leu Asp Asn Lys His 1475 1480 1485 Phe Leu Ile Val Phe Val His Ala Leu Glu Gln Gln Lys Asp Phe Ala 1495 1500 1490 Val Arg Asp Arg Cys Ser Leu Ala Ser Leu Leu Thr Ile Ala Leu His 1510 1515 1520 Gly Lys Leu Glu Tyr Tyr Thr Ser Ile Met Lys Glu Leu Leu Val Asp 1530 . 1535 1525 Leu Ile Asp Ala Ser Ala Ala Lys Asn Pro Lys Leu Met Leu Arg Arg 1540 1545 1550 Thr Glu Ser Val Val Glu Lys Met Leu Thr Asn Trp Met Ser Ile Cys 1560 1565 1555 Met Tyr Ser Cys Leu Arg Glu Thr Val Gly Glu Pro Phe Leu Leu 1575 1580 1570 Leu Cys Ala Ile Lys Gln Gln Ile Asn Lys Gly Ser Ile Asp Ala Ile 1590 1595 Thr Gly Lys Ala Arg Tyr Thr Leu Asn Glu Glu Trp Leu Leu Arg Glu 1605 1610 1615 Asn Ile Glu Ala Lys Pro Arg Asn Leu Asn Val Ser Phe Gln Gly Cys 1620 1625 1630 Gly Met Asp Ser Leu Ser Val Arg Ala Met Asp Thr Asp Thr Leu Thr 1640 1645 Gln Val Lys Glu Lys Ile Leu Glu Ala Phe Cys Lys Asn Val Pro Tyr 1655 1660 1650 Ser Gln Trp Pro Arg Ala Glu Asp Val Asp Leu Glu Trp Phe Ala Ser 1670 1675 Ser Thr Gln Ser Tyr Ile Leu Arg Asp Leu Asp Asp Thr Ser Val Val 1685 1690 1695 Glu Asp Gly Arg Lys Lys Leu Asn Thr Leu Ala His Tyr Lys Ile Pro 1700 1705 1710 Glu Gly Ala Ser Leu Ala Met Ser Leu Ile Asp Lys Lys Asp Asn Thr 1715 1720 1725 Leu Gly Arg Val Lys Asp Leu Asp Thr Glu Lys Tyr Phe His Leu Val

Leu Pro Thr Asp Glu Leu Ala Glu Pro Lys Lys Ser His Arg Gln Ser 1750 1755 1760 His Arg Lys Lys Val Leu Pro Glu Ile Tyr Leu Thr Arg Leu Leu Ser 1765 1770 1775 Thr Lys Gly Thr Leu Gln Lys Phe Leu Asp Asp Leu Phe Lys Ala Ile 1780 1785 1790 Leu Ser Ile Arg Glu Asp Lys Pro Pro Leu Ala Val Lys Tyr Phe Phe 1795 1800 1805 Asp Phe Leu Glu Glu Gln Ala Glu Lys Arg Gly Ile Ser Asp Pro Asp 1810 1815 1820 Thr Leu His Ile Trp Lys Thr Asn Ser Leu Pro Leu Arg Phe Trp Val 1830 1835 1825 Asn Ile Leu Lys Asn Pro Gln Phe Val Phe Asp Ile Asp Lys Thr Asp 1845 1850 His Ile Asp Ala Cys Leu Ser Val Ile Ala Gln Ala Phe Ile Asp Ala 1860 1865 1870 Cys Ser Ile Ser Asp Leu Gln Leu Gly Lys Asp Ser Pro Thr Asn Lys 1885 1875 1880 Leu Leu Tyr Ala Lys Glu Ile Pro Glu Tyr Arg Lys Ile Val Gln Arg 1890 1895 1900 Tyr Tyr Lys Gln Ile Gln Asp Met Thr Pro Leu Ser Glu Gln Glu Met 1910 1915 1920 1905 Asn Ala His Leu Ala Glu Glu Ser Arg Lys Tyr Gln Asn Glu Phe Asn 1925 1930 1935 Thr Asn Val Ala Met Ala Glu Ile Tyr Lys Tyr Ala Lys Arg Tyr Arg 1945 1950 1940 Pro Gln Ile Met Ala Ala Leu Glu Ala Asn Pro Thr Ala Arg Arg Thr 1955 1960 1965 Gln Leu Gln His Lys Phe Glu Gln Val Val Ala Leu Met Glu Asp Asn 1970 1975 1980 Ile Tyr Glu Cys Tyr Ser Glu Ala 1990 1992 1985

<210> 2080 <211> 96 <212> PRT <213> Homo sapiens

<400> 2080 Gln Pro Ser Pro Leu Phe His Ser His Leu Glu Thr Leu Gln Leu Leu 1 5 10 15 Arg Thr Ala Gln Leu Pro Glu Gln Val Ser Trp Pro Trp Gly Gln Val 25 20 Ala Asn Gly Lys Gly Asn Gln Arg Asn Met Gly Ser Pro Gln Pro Ser 35 40 Leu Leu Ala Phe Glu Arg Asn Leu Glu Leu Gln Ile Met Gly Leu Gly 55 60 Tyr Ser Leu Leu Met Gly Lys Leu Arg Pro Arg Val Ala Lys Asp Thr 70 75 Leu Arg Val His Arg Asp Ser Thr Pro Ser Pro Leu Thr Leu Lys Asp 85 90 95 96

<210> 2081 <211> 127 <212> PRT <213> Homo sapiens

<400> 2081 Phe Leu Lys Cys Met Arg Lys Ala Phe Arg Ser Ser Lys Leu Leu Gln 10 Val Gly Tyr Thr Pro Asp Gly Lys Asp Asp Tyr Arg Trp Cys Phe Arg 25 20 Val Asp Glu Val Asn Trp Thr Trp Asn Thr Asn Val Gly Ile Ile 40 Asn Glu Asp Pro Gly Asn Cys Glu Gly Val Lys Arg Thr Leu Ser Phe 55 60 Ser Leu Arg Ser Ser Arg Val Ser Gly Arg His Trp Lys Asn Phe Ala 70 Leu Val Pro Leu Leu Arg Glu Ala Ser Ala Arg Asp Arg Gln Ser Ala 85 90 Gln Pro Glu Glu Val Tyr Leu Arg Gln Phe Ser Gly Ser Leu Lys Pro 105 100 Glu Asp Ala Glu Val Phe Lys Ser Pro Ala Ala Ser Gly Glu Lys 115 120

<210> 2082 <211> 64 <212> PRT <213> Homo sapiens

<210> 2083 <211> 740 <212> PRT <213> Homo sapiens

<400> 2083 Ala Ala Gly Pro Pro Gly Leu Glu Ala Glu Gly Arg Ala Pro Glu Ser 10 Ala Gly Pro Gly Pro Gly Gly Asp Ala Ala Glu Thr Pro Gly Leu Pro 25 20 Pro Ala His Ser Gly Thr Leu Met Met Ala Phe Arg Asp Val Thr Val 35 40 Gln Ile Ala Asn Gln Asn Ile Ser Val Ser Ser Ser Thr Ala Leu Ser Val Ala Asn Cys Leu Gly Ala Gln Thr Val Gln Ala Pro Ala Glu Pro 75 Ala Ala Gly Lys Ala Glu Gln Gly Glu Thr Ser Gly Arg Glu Ala Pro 85 90 Glu Ala Pro Ala Val Gly Arg Glu Asp Ala Ser Ala Glu Asp Ser Cys 105 110 Ala Glu Ala Gly Ala Ser Gly Ala Ala Asp Gly Ala Thr Ala Pro Lys 120

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Thr Glu Glu Glu Glu Glu Glu Glu Thr Ala Glu Val Gly Arg Gly
                     135
                                       140
Ala Glu Ala Glu Ala Gly Asp Leu Glu Gln Leu Asn Arg Thr Ser Thr
                 150
                                  155
Ser Thr Lys Ser Ala Lys Ser Gly Ser Glu Ala Ser Ala Ser Ala Ser
             165
                             170
Lys Asp Ala Leu Gln Ala Met Ile Leu Ser Leu Pro Arg Tyr His Cys
         180 185
                                              190
Glu Asn Pro Ala Ser Cys Lys Ser Pro Thr Leu Ser Thr Asp Thr Leu
                       200
                                        205
Arg Lys Arg Leu Tyr Arg Ile Gly Leu Asn Leu Phe Asn Ile Asn Pro
                    215
                                      220
Asp Lys Gly Ile Gln Phe Leu Ile Ser Arg Gly Phe Ile Pro Asp Thr
                                   235
                230
Pro Ile Gly Val Ala His Phe Leu Leu Gln Arg Lys Gly Leu Ser Arg
                      250
            245
Gln Met Ile Gly Glu Phe Leu Gly Asn Ser Lys Lys Gln Phe Asn Arg
                  265 270
          260
Asp Val Leu Asp Cys Val Val Asp Glu Met Asp Phe Ser Ser Met Glu
                        280
                                 285
Leu Asp Glu Ala Leu Arg Lys Phe Gln Ala His Ile Arg Val Gln Gly
                                      300
                    295
Glu Ala Gln Lys Val Glu Arg Leu Ile Glu Ala Phe Ser Gln Arg Tyr
               310
                                   315
Cys Met Cys Asn Pro Glu Val Val Gln Gln Phe His Asn Pro Asp Thr
                              330
           325
Ile Phe Ile Leu Ala Phe Ala Ile Ile Leu Leu Asn Thr Asp Met Tyr
          340
                    345
                                    350
Ser Pro Asn Ile Lys Pro Asp Arg Lys Met Met Leu Glu Asp Phe Ile
                        360
                                 365
Arg Asn Leu Arg Gly Val Asp Asp Gly Ala Asp Ile Pro Arg Glu Leu
                                      380
                    375
Val Val Gly Ile Tyr Glu Arg Ile Gln Gln Lys Glu Leu Lys Ser Asn
                 390
                                    395
Glu Asp His Val Thr Tyr Val Thr Lys Val Glu Lys Ser Ile Val Gly
                               410
              405
Met Lys Thr Val Leu Ser Val Pro His Arg Arg Leu Val Cys Cys Ser
                                            430
         420
                    425
Arg Leu Phe Glu Val Thr Asp Val Asn Lys Leu Gln Lys Gln Ala Ala
                                  445
                         440
His Gln Arg Glu Val Phe Leu Phe Asn Asp Leu Leu Val Ile Leu Lys
                    455
                                      460
Leu Cys Pro Lys Lys Lys Ser Ser Ser Thr Tyr Thr Phe Cys Lys Ser
                                   475
                 470
Val Gly Leu Leu Gly Met Gln Phe Gln Leu Phe Glu Asn Glu Tyr Tyr
                      490
                                                 495
             485
Ser His Gly Ile Thr Leu Val Thr Pro Leu Ser Gly Ser Glu Lys Lys
                   505
          500
Gln Val Leu His Phe Cys Ala Leu Gly Ser Asp Glu Met Gln Lys Phe
                         520
                                           525
Val Glu Asp Leu Lys Glu Ser Ile Ala Glu Val Thr Glu Leu Glu Gln
                    535
                                       540
Ile Arg Ile Glu Trp Glu Leu Glu Lys Gln Gln Gly Thr Lys Thr Leu
                                   555
                 550
Ser Phe Lys Pro Cys Gly Ala Gln Gly Asp Pro Gln Ser Lys Gln Gly
                                570
Ser Pro Thr Ala Lys Arg Glu Ala Ala Leu Arg Glu Arg Pro Ala Glu
                            585
Ser Thr Val Glu Val Ser Ile His Asn Arg Leu Gln Thr Ser Gln His
       595
                        600
Asn Ser Gly Leu Gly Ala Glu Arg Gly Ala Pro Val Pro Pro Pro Asp
                     615
                                      620 .
Leu Gln Pro Ser Pro Pro Arg Gln Gln Thr Pro Pro Leu Pro Pro
                                   635
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Pro Pro Thr Pro Pro Gly Thr Leu Val Gln Cys Gln Gln Ile Val Lys 645 650 Val Ile Val Leu Asp Lys Pro Cys Leu Ala Arg Met Glu Pro Leu Leu 660 665 670 Ser Gln Ala Leu Ser Cys Tyr Thr Ser Ser Ser Ser Asp Ser Cys Gly 680 Ser Thr Pro Leu Gly Gly Pro Gly Ser Pro Val Lys Val Thr His Gln 695 700 Pro Pro Leu Pro Pro Pro Pro Pro Pro Tyr Asn His Pro His Gln Phe 705 710 715 720 Cys Pro Pro Gly Ser Leu Leu His Gly His Arg Tyr Ser Ser Gly Ser 730 Arg Ser Leu Val 740

<210> 2084 <211> 118 <212> PRT <213> Homo sapiens

<400> 2084 Ser Ser Val Met Gly Asp Leu Val Gly Gln Gly Leu Glu Glu Gln Ile 10 Val Ala Arg Asp Glu Asn Ser Trp Leu Ile Asp Gly Gly Thr Pro Ile 20 25 Asp Asp Val Met Arg Val Leu Asp Ile Asp Glu Phe Pro Gln Ser Gly Asn Tyr Glu Thr Ile Gly Gly Phe Met Met Phe Met Leu Arg Lys Ile 55 Pro Lys Arg Thr Asp Ser Val Lys Phe Ala Gly Tyr Lys Phe Glu Val 75 70 Val Asp Ile Asp Asn Tyr Arg Ile Asp Gln Leu Leu Val Thr Arg Ile 85 90 Asp Ser Lys Ala Thr Ala Leu Ser Pro Lys Leu Pro Asp Ala Lys Asp Lys Glu Glu Ser Val Ala 115 118

<210> 2085 <211> 419 <212> PRT <213> Homo sapiens

<400> 2085

Met Val Phe Ser Ala Val Leu Thr Ala Phe His Thr Gly Thr Ser Asn Thr Thr Phe Val Val Tyr Glu Asn Thr Tyr Met Asn Ile Thr Leu Pro 25 Pro Pro Phe Gln His Pro Asp Leu Ser Pro Leu Leu Arg Tyr Ser Phe 40 Glu Thr Met Ala Pro Thr Gly Leu Ser Ser Leu Thr Val Asn Ser Thr 55 60 Ala Val Pro Thr Thr Pro Ala Ala Phe Lys Ser Leu Asn Leu Pro Leu 70 75 Gln Ile Thr Leu Ser Ala Ile Met Ile Phe Ile Leu Phe Val Ser Phe 85 90 Leu Gly Asn Leu Val Val Cys Leu Met Val Tyr Gln Lys Ala Ala Met 105

Arg Ser Ala Ile Asn Ile Leu Leu Ala Ser Leu Ala Phe Ala Asp Met 120 Leu Leu Ala Val Leu Asn Met Pro Phe Ala Leu Val Thr Ile Leu Thr 140 135 Thr Arg Trp Ile Phe Gly Lys Phe Phe Cys Arg Val Ser Ala Met Phe 155 150 Phe Trp Leu Phe Val Ile Glu Gly Val Ala Ile Leu Leu Ile Ile Ser 170 165 Ile Asp Arg Phe Leu Ile Ile Val Gln Arg Gln Asp Lys Leu Asn Pro 190 185 Tyr Arg Ala Lys Val Leu Ile Ala Val Ser Trp Ala Thr Ser Phe Cys 205 200 195 Val Ala Phe Pro Leu Ala Val Gly Asn Pro Asp Leu Gln Ile Pro Ser 210 215 Arg Ala Pro Gln Cys Val Phe Gly Tyr Thr Thr Asn Pro Gly Tyr Gln 235 230 Ala Tyr Val Ile Leu Ile Ser Leu Ile Ser Phe Phe Ile Pro Phe Leu 250 255 245 Val Ile Leu Tyr Ser Phe Met Gly Ile Leu Asn Thr Leu Arg His Asn 265 . 270 260 Ala Leu Arg Ile His Ser Tyr Pro Glu Gly Ile Cys Leu Ser Gln Ala 275 280 285 Ser Lys Leu Gly Leu Met Gly Leu Gln Arg Pro Phe Gln Met Ser Ile 290 295 300 Asp Met Gly Phe Lys Thr Arg Ala Phe Thr Thr Ile Leu Ile Leu Phe 315 310 Ala Val Phe Ile Val Cys Trp Ala Pro Phe Thr Thr Tyr Ser Leu Val 330 335 325 Ala Thr Phe Ser Lys His Phe Tyr Tyr Gln His Asn Phe Phe Glu Ile 350 340 345 Ser Thr Trp Leu Leu Trp Leu Cys Tyr Leu Lys Ser Ala Leu Asn Pro 355 360 365 355 360 Leu Ile Tyr Tyr Trp Arg Ile Lys Lys Phe His Asp Ala Cys Leu Asp 370 375 380 Met Met Pro Lys Ser Phe Lys Phe Leu Pro Gln Leu Pro Gly His Thr 390 395 Lys Arg Arg Ile Arg Pro Ser Ala Val Tyr Val Cys Gly Glu His Arg 405 410 Thr Val Val 419

<210> 2086 <211> 88 <212> PRT <213> Homo sapiens

<210> 2087 <211> 173 <212> PRT <213> Homo sapiens

<400> 2087 Leu Thr Trp Pro Gln Leu Phe Leu Glu Thr Leu Pro Glu Leu Leu His 5 10 Met Ser Arg Pro Ala Glu Asp Gly Pro Ser Pro Gly Ala Leu Val Arg 20 25 Arg Ser Ser Ser Leu Gly Tyr Ile Ser Lys Ala Glu Glu Tyr Phe Leu Leu Lys Ser Arg Ser Asp Leu Met Phe Glu Lys Gln Ser Glu Arg His 60 55 Gly Leu Ala Arg Arg Leu Thr Thr Ala Arg Arg Pro Pro Ala Ser Ser 70 75 Glu Gln Ala Gln Gln Glu Leu Phe Asn Glu Leu Lys Pro Ala Val Asp 85 90 Gly Ala Asn Phe Ile Val Asn His Met Arg Asp Gln Asn Asn Tyr Asn 100 105 110 Glu Glu Lys Asp Ser Trp Asn Arg Val Ala Arg Thr Val Asp Arg Leu 120 125 Cys Leu Phe Val Val Thr Pro Val Met Val Val Gly Thr Ala Trp Ile 135 140 Phe Leu Gln Gly Val Tyr Asn Gln Pro Pro Pro Gln Pro Phe Pro Gly 155 150 Asp Pro Tyr Ser Tyr Asn Val Gln Asp Lys Arg Phe Ile 165 170

<210> 2088 <211> 386 <212> PRT <213> Homo sapiens

<400> 2088 Leu Val Val Thr Ala Ile Thr Ala Ile Leu Ala Phe Pro Asn Glu Tyr 10 Thr Arg Met Ser Thr Ser Glu Leu Ile Ser Glu Leu Phe Asn Asp Cys 20 25 Gly Leu Leu Asp Ser Ser Lys Leu Cys Asp Tyr Glu Asn Arg Phe Asn 40 Thr Ser Lys Gly Gly Glu Leu Pro Asp Arg Pro Ala Gly Val Gly Val 55 60 Tyr Ser Ala Met Trp Gln Leu Ala Leu Thr Leu Ile Leu Lys Ile Val 75 70 Ile Thr Ile Phe Thr Phe Gly Met Lys Ile Pro Ser Gly Leu Phe Ile 85 90 Pro Ser Met Ala Val Gly Ala Ile Ala Gly Arg Leu Leu Gly Val Gly 100 105 Met Glu Gln Leu Ala Tyr Tyr His Gln Glu Trp Thr Val Phe Asn Ser 120 . 125 115 Trp Cys Ser Gln Gly Ala Asp Cys Ile Thr Pro Gly Leu Tyr Ala Met 135 140 Val Gly Ala Ala Ala Cys Leu Gly Gly Val Thr Arg Met Thr Val Ser 150 155 Leu Val Val Ile Met Phe Glu Leu Thr Gly Gly Leu Glu Tyr Ile Val 165 175 170 Pro Leu Met Ala Ala Ala Met Thr Ser Lys Trp Val Ala Asp Ala Leu 180 185

Gly Arg Glu Gly Ile Tyr Asp Ala His Ile Arg Leu Asn Gly Tyr Pro 200 Phe Leu Glu Ala Lys Glu Glu Phe Ala His Lys Thr Leu Ala Met Asp 215 220 Val Met Lys Pro Arg Arg Asn Asp Pro Leu Leu Thr Val Leu Thr Gln 235 230 Asp Ser Met Thr Val Glu Asp Val Glu Thr Ile Ile Ser Glu Thr Thr 250 245 Tyr Ser Gly Phe Pro Val Val Val Ser Arg Glu Ser Gln Arg Leu Val 265 270 260 Gly Phe Val Leu Arg Arg Asp Leu Ile Ile Ser Ile Glu Asn Ala Arg 275 280 285 Lys Lys Gln Asp Gly Val Val Ser Thr Ser Ile Ile Tyr Phe Thr Glu 295 300 His Ser Pro Pro Leu Pro Pro Tyr Thr Pro Pro Thr Leu Lys Leu Arg 310 315 Asn Ile Leu Asp Leu Ser Pro Phe Thr Val Thr Asp Leu Thr Pro Met 325 330 Glu Ile Val Val Asp Ile Phe Arg Lys Leu Gly Leu Arg Gln Cys Leu 340 345 350 Val Thr His Asn Gly Arg Leu Leu Gly Ile Ile Thr Lys Lys Asp Val 365 360 Leu Lys His Ile Ala Gln Met Ala Asn Gln Asp Pro Asp Ser Ile Leu Phe Asn 385 386

<210> 2089 <211> 304 <212> PRT <213> Homo sapiens

<400> 2089 Thr Leu Gln Leu Ala Ala Ser Val Pro Phe Phe Ala Ile Ser Leu Ile 10 Ser Trp Trp Leu Pro Glu Ser Ala Arg Trp Leu Ile Ile Asn Gly Lys 25 2.0 Pro Asp Gln Ala Leu Gln Glu Leu Arg Lys Val Ala Arg Ile Asn Gly 40 45 His Lys Glu Ala Lys Asn Leu Thr Ile Glu Val Leu Met Ser Ser Val 60 Lys Glu Glu Val Ala Ser Ala Lys Glu Pro Arg Ser Val Leu Asp Leu 70 Phe Cys Val Pro Val Leu Arg Trp Arg Ser Cys Ala Met Leu Val Val 85 90 Asn Phe Ser Leu Leu Ile Ser Tyr Tyr Gly Leu Val Phe Asp Leu Gln 110 100 105 Ser Leu Gly Arg Asp Ile Phe Leu Leu Gln Ala Leu Phe Gly Ala Val 120 Asp Phe Leu Gly Arg Ala Thr Thr Ala Leu Leu Leu Ser Phe Leu Gly 140 135 Arg Arg Thr Ile Gln Ala Gly Ser Gln Ala Met Ala Gly Leu Ala Ile 150 155 Leu Ala Asn Met Leu Val Pro Gln Asp Leu Gln Thr Leu Arg Val Val 165 170 Phe Ala Val Leu Gly Lys Gly Cys Phe Gly Ile Ser Leu Thr Cys Leu 185 190 180 Thr Ile Tyr Lys Ala Glu Leu Phe Pro Thr Pro Val Arg Met Thr Ala 200 205 195 Asp Gly Ile Leu His Thr Val Gly Arg Leu Gly Ala Met Met Gly Pro 210 215

Leu Ile Leu Met Ser Arg Gln Ala Leu Pro Leu Leu Pro Pro Leu Leu 225

Tyr Gly Val Ile Ser Ile Ala Ser Ser Leu Val Val Leu Phe Phe Leu 255

Pro Glu Thr Gln Gly Leu Pro Leu Pro Asp Thr Ile Gln Asp Leu Glu 260

Ser Gln Lys Ser Thr Ala Ala Gln Gly Asn Arg Gln Glu Ala Phe Thr 275

Val Glu Ser Thr Ser Leu Leu Glu Ile Val Ala Leu His Gly Ala Leu 290

<210> 2090 <211> 141 <212> PRT <213> Homo sapiens

<400> 2090 Arg Pro Ile Lys Thr Leu Gly Ile Gly Phe His Phe Ser Val Asp Gly Val His Phe Leu Thr Gln Arg Glu Val Gln Asn Leu Trp Lys Glu Asn 25 20 Leu Ile Ile Leu Asp Thr Ala Lys Lys His Gly Tyr Glu Val Val Asp 35 40 Thr Phe Thr Ile Thr Met Gly Arg Tyr Lys Glu Phe Leu Gln Gly Lys Cys Gly Cys His Phe His Glu Val Val Lys Ser Lys Leu Ser Lys Glu 70 Tyr Asn Phe Ile Lys Met Lys Arg Ser Arg Asn His Ile Met Gly Arg 85 90 95 90 Tyr Phe Ser Asn Gln Ser Lys Leu Gln Gln Gly Thr Val Thr Asn Phe 105 Arg Ser Pro Tyr His Val Arg Gly Pro Ile Asn Gln Val Cys Ser Glu 120 Ile Leu Leu Ser Arg Met Cys Ala Asn Lys Arg Thr Met 135

<210> 2091 <211> 136 <212> PRT <213> Homo sapiens

<400> 2091 Arg Met Pro Glu Ser Thr Leu Leu Ile Ile Cys Glu Asn Gly Tyr Ile Leu Glu Ala Pro Leu Pro Thr Ile Lys Gln Glu Glu Asp Asp His Asp 25 20 Val Val Ser Tyr Glu Ile Lys Asp Met Cys Ile Lys Cys Phe His Phe 40 Ser Ser Val Lys Ser Lys Ile Leu Arg Leu Ile Glu Ile Glu Lys Arg Glu Arg Gln Arg Glu Leu Lys Glu Lys Ile Arg Glu Glu Arg Arg Asn 70 75 Lys Leu Ala Ala Glu Met Gly Glu Asp Gly Glu Lys Glu Phe Gln Glu 85 90 Glu Glu Glu Glu Lys Glu Glu Glu Glu Glu Glu Glu Pro Leu Pro 105

Glu Ile Phe Ile Pro Ser Thr Pro Ser Pro Ile Leu Cys Gly Phe Tyr
115 120 125

Ser Glu Pro Gly Lys Phe Trp Val
130 135 136

<210> 2092 <211> 160 <212> PRT <213> Homo sapiens

<400> 2092 Met Gly Cys Arg Leu Leu Cys Cys Val Val Phe Cys Leu Leu Gln Ala Gly Pro Leu Asp Thr Ala Val Ser Gln Thr Pro Lys Tyr Leu Val Thr 25 20 Gln Met Gly Asn Asp Lys Ser Ile Lys Cys Glu Gln Asn Leu Gly His 40 35 Asp Thr Met Tyr Trp Tyr Lys Gln Asp Ser Lys Lys Phe Leu Lys Ile 55 Met Phe Ser Tyr Asn Asn Lys Glu Leu Ile Ile Asn Glu Thr Val Pro 75 Asn Arg Phe Ser Pro Lys Ser Pro Asp Lys Ala His Leu Asn Leu His 90 85 Ile Asn Ser Leu Glu Leu Gly Asp Ser Ala Val Tyr Phe Cys Ala Ser 100 105 110 Ser Gln Asp Thr Ala Leu Gln Ser His Cys Ile Pro Val His Lys Pro 115 120 125 Pro Gly Ser Ala Arg Lys Leu Gln Gly Ser Val Cys Thr Cys Thr Gln 135 140 Gly Ser Ser Leu His Ser Leu Met Ala Ser Asp Gly Val Pro Val Cys 155

<210> 2093 <211> 522 <212> PRT <213> Homo sapiens

<400> 2093 Met Asn Ser Phe Phe Gly Thr Pro Ala Ala Ser Trp Cys Leu Leu Glu 10 5 Ser Asp Val Ser Ser Ala Pro Asp Lys Glu Ala Gly Arg Glu Arg Arg 25 20 Ala Leu Ser Val Gln Gln Arg Gly Gly Pro Ala Trp Ser Gly Ser Leu 40 Glu Trp Ser Arg Gln Ser Ala Gly Asp Arg Arg Leu Gly Leu Ser 50 55 Arg Gln Thr Ala Lys Ser Ser Trp Ser Arg Ser Arg Asp Arg Thr Cys 70 75 Cys Cys Arg Arg Ala Trp Trp Ile Leu Val Pro Ala Ala Asp Arg Ala 90 95 85 Arg Arg Glu Arg Phe Ile Met Asn Glu Lys Trp Asp Thr Asn Ser Ser 110 105 Glu Asn Trp His Pro Ile Trp Asn Val Asn Asp Thr Lys His His Leu 125 115 120 Tyr Ser Asp Ile Asn Ile Thr Tyr Val Asn Tyr Tyr Leu His Gln Pro 135

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Gln Val Ala Ala Ile Phe Ile Ile Ser Tyr Phe Leu Ile Phe Phe Leu
              150
                               155
Cys Met Met Gly Asn Thr Val Val Cys Phe Ile Val Met Arg Asn Lys
                            170
            165
His Met His Thr Val Thr Asn Leu Phe Ile Leu Asn Leu Ala Ile Ser
                 185
                                 190
         180
Asp Leu Leu Val Gly Ile Phe Cys Met Pro Ile Thr Leu Leu Asp Asn
              200
Ile Ile Ala Gly Trp Pro Phe Gly Asn Thr Met Cys Lys Ile Ser Gly
 210 215
                                  220
Leu Val Gln Gly Ile Ser Val Ala Ala Ser Val Phe Thr Leu Val Ala
                      235
              230
Ile Ala Val Asp Arg Phe Gln Cys Val Val Tyr Pro Phe Lys Pro Lys
            245
                           250
Leu Thr Ile Lys Thr Ala Phe Val Ile Ile Met Ile Ile Trp Val Leu
                                         270
         260 265
Ala Ile Thr Ile Met Ser Pro Ser Ala Val Met Leu His Val Gln Glu
                     280
                                285
Glu Lys Tyr Tyr Arg Val Arg Leu Asn Ser Gln Asn Lys Thr Ser Pro
                  295
                                  300
Val Tyr Trp Cys Arg Glu Asp Trp Pro Asn Gln Glu Met Arg Lys Ile
         310 315
Tyr Thr Thr Val Leu Phe Ala Asn Ile Tyr Leu Ala Pro Leu Ser Leu
            325 330 335
Ile Val Ile Met Tyr Gly Arg Ile Gly Ile Ser Leu Phe Arg Ala Ala
                        345
Val Pro His Thr Gly Arg Lys Asn Gln Glu Gln Trp His Val Val Ser
                     360
                                      365
Arg Lys Lys Gln Lys Ile Ile Lys Met Leu Leu Ile Val Ala Leu Leu
                        380
          375
Phe Ile Leu Ser Trp Leu Pro Leu Trp Thr Leu Met Met Leu Ser Asp
                       395 400
              390
Tyr Ala Asp Leu Ser Pro Asn Glu Leu Gln Ile Ile Asn Ile Tyr Ile
                           410
            405
Tyr Pro Phe Ala His Trp Leu Ala Phe Gly Asn Ser Ser Val Asn Pro
       420
                         425
Ile Ile Tyr Gly Phe Phe Asn Glu Asn Phe Arg Arg Gly Phe Gln Glu
                     440
                           445
Ala Phe Gln Leu Gln Leu Cys Gln Lys Arg Ala Lys Pro Met Glu Ala
                   455
                                   460
Tyr Ala Leu Lys Ala Lys Ser His Val Leu Ile Asn Thr Ser Asn Gln
           470
                        475
Leu Val Gln Glu Ser Thr Phe Gln Asn Pro His Gly Glu Thr Leu Leu
            485 490
Tyr Arg Lys Ser Ala Glu Lys Pro Gln Gln Glu Leu Val Met Glu Glu
                 505
Leu Lys Glu Thr Thr Asn Ser Ser Glu Ile
                      520 522
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<210> 2094 <211> 59 <212> PRT <213> Homo sapiens

Met Glu Ala Pro Asp Ile Arg Gln Gly Asp Met 50 55 59

> <210> 2095 <211> 147 <212> PRT <213> Homo sapiens

<400> 2095 Gly Ala Pro His Thr Asp Trp Ala Trp Ala Pro Thr Pro Met Ser Gly 10 Leu Gly Ser Gly Arg Gly Arg Gln Gly Thr Leu Ala Ser Ser Pro Leu Ser Leu Pro Leu Leu Leu Ala Gly Val Thr Gly Ile Leu Ala Thr Glu Leu Phe Asp Gln Met Ala Arg Pro Ala Ala Cys Met Val Cys Gly Ala 55 60 Leu Met Trp Ile Met Leu Ile Leu Val Gly Leu Gly Phe Pro Phe Ile 70 75 · Met Glu Ala Leu Ser His Phe Leu Tyr Val Pro Phe Leu Gly Val Cys 90 85 Val Cys Gly Ala Ile Tyr Thr Gly Leu Phe Leu Pro Glu Thr Lys Gly 100 105 110 Lys Thr Phe Gln Glu Ile Ser Lys Glu Leu His Arg Leu Asn Phe Pro 120 125 Arg Arg Ala Gln Gly Pro Thr Trp Arg Ser Leu Glu Val Ile Gln Ser 135 130 Thr Glu Leu 145 147

<210> 2096 <211> 446 <212> PRT <213> Homo sapiens

<400> 2096 Ala Gln Thr Ala Arg Arg Ile Ile Gly Leu Glu Leu Asp Thr Glu Gly 1 10 His Arg Leu Phe Val Ala Phe Ser Gly Cys Ile Val Tyr Leu Pro Leu Ser Arg Cys Ala Arg His Gly Ala Cys Gln Arg Ser Cys Leu Ala Ser 35 40 Gln Asp Pro Tyr Cys Gly Trp His Ser Ser Arg Gly Cys Val Asp Ile 50 55 60 Arg Gly Ser Gly Gly Thr Asp Val Asp Gln Ala Gly Asn Gln Glu Ser 75 65 70 Met Glu His Gly Asp Cys Gln Asp Gly Ala Thr Gly Ser Gln Ser Gly 90 Pro Gly Asp Ser Ala Tyr Gly Val Arg Arg Asp Leu Pro Pro Ala Ser 100 105 110 Ala Ser Arg Ser Val Pro Ile Pro Leu Leu Leu Ala Ser Val Ala Ala 125 115 120 Ala Phe Ala Leu Gly Ala Ser Val Ser Gly Leu Leu Val Ser Cys Ala 135 140 Cys Arg Arg Ala His Arg Arg Gly Lys Asp Ile Glu Thr Pro Gly 155 150 Leu Pro Arg Pro Leu Ser Leu Arg Ser Leu Ala Arg Leu His Gly Gly 165 170

Gly Pro Glu Pro Pro Pro Pro Ser Lys Asp Gly Asp Ala Val Gln Thr 185 Pro Gln Leu Tyr Thr Thr Phe Leu Pro Pro Pro Glu Gly Val Pro Pro 200 Pro Glu Leu Ala Cys Leu Pro Thr Pro Glu Ser Thr Pro Glu Leu Pro 220 215 Val Lys His Leu Arg Ala Ala Gly Asp Pro Trp Glu Trp Asn Gln Asn 225 230 235 240 230 Arg Asn Asn Ala Lys Glu Gly Pro Gly Arg Ser Arg Gly Gly His Ala 245 250 255 Ala Gly Gly Pro Ala Pro Arg Val Leu Val Arg Pro Pro Pro Pro Gly 265 260 Cys Pro Gly Gln Ala Val Glu Val Thr Thr Leu Glu Glu Leu Leu Arg 280 285 Tyr Leu His Gly Pro Gln Pro Pro Arg Lys Gly Ala Glu Pro Pro Ala 300 295 Pro Leu Thr Ser Arg Ala Leu Pro Pro Glu Pro Ala Pro Ala Leu Leu 315 310 Gly Gly Pro Ser Pro Arg Pro His Glu Cys Ala Ser Pro Leu Arg Leu 330 325 Asp Val Pro Pro Glu Gly Arg Cys Ala Ser Ala Pro Ala Arg Pro Ala 345 340 Leu Ser Ala Pro Ala Pro Arg Leu Gly Val Gly Gly Gly Arg Arg Leu 360 365 Pro Phe Ser Gly His Arg Ala Pro Pro Ala Leu Leu Thr Arg Val Pro 375 380 Ser Gly Gly Pro Ser Arg Tyr Ser Gly Gly Pro Gly Lys His Leu Leu 395 390 Tyr Leu Gly Arg Pro Glu Gly Tyr Arg Gly Arg Ala Leu Lys Arg Val 410 405 Asp Val Glu Lys Pro Gln Leu Ser Leu Lys Pro Pro Leu Val Gly Pro 425 420 Ser Ser Arg Gln Ala Val Pro Asn Gly Gly Arg Phe Asn Phe 440

<210> 2097 <211> 250 <212> PRT <213> Homo sapiens

<400> 2097 Asp His Ala Ser Leu Pro Cys Ser Trp Asn His Arg Phe Asp Val Glu 5 3.0 Thr Arg His Val Phe Ile Gly Asp His Ser Gly Gln Val Thr Ile Leu 25 Lys Leu Glu Glu Asn Cys Thr Leu Val Thr Thr Phe Arg Gly His 40 35 Thr Gly Gly Val Thr Ala Leu Cys Trp Asp Pro Val Gln Arg Val Leu 55 60 Phe Ser Gly Ser Ser Asp His Ser Val Ile Met Trp Asp Ile Gly Gly 65 70 75 80 70 Arg Lys Gly Thr Ala Ile Glu Leu Gln Gly His Asn Asp Arg Val Gln 90 85 Ala Leu Ser Tyr Ala Gln His Thr Arg Gln Leu Ile Ser Cys Gly Gly 100 105 110 Asp Gly Gly Ile Val Val Trp Asn Met Asp Val Glu Arg Gln Glu Thr 120 125 Pro Glu Trp Leu Asp Ser Asp Ser Cys Gln Lys Cys Asp Gln Pro Phe 135 140 Phe Trp Asn Phe Lys Gln Met Trp Asp Ser Lys Lys Ile Gly Leu Arg 155 150

Gln His His Cys Arg Lys Cys Gly Lys Ala Val Cys Gly Lys Cys Ser 165 170 175 Ser Lys Arg Ser Ser Ile Pro Leu Met Gly Phe Glu Phe Glu Val Arg 180 185 190 Val Cys Asp Ser Cys His Glu Ala Ile Thr Asp Glu Glu Arg Ala Pro 200 205 195 Thr Ala Thr Phe His Asp Ser Lys His Asn Ile Val His Val His Phe 220 215 Asp Ala Thr Arg Gly Trp Leu Leu Thr Ser Gly Thr Asp Lys Val Ile 235 230 Lys Leu Trp Asp Met Thr Pro Val Val Ser 245

<210> 2098 <211> 248 <212> PRT <213> Homo sapiens

<400> 2098 Ala Met Val Phe Gly Gly Val Val Pro Tyr Val Pro Gln Tyr Arg Asp Ile Arg Arg Thr Gln Asn Ala Asp Gly Phe Ser Thr Tyr Val Cys Leu 20 25 Val Leu Leu Val Ala Asn Ile Leu Arg Ile Leu Phe Trp Phe Gly Arg 40 35 Arg Phe Glu Ser Pro Leu Leu Trp Gln Ser Ala Ile Met Ile Leu Thr 60 55 Met Leu Leu Met Leu Lys Leu Cys Thr Glu Val Arg Val Ala Asn Glu 70 Leu Asn Ala Arg Arg Arg Ser Phe Thr Ala Ala Asp Ser Lys Asp Glu 85 90 Glu Val Lys Val Ala Pro Arg Arg Ser Phe Leu Asp Phe Asp Pro His 100 105 His Phe Trp Gln Trp Ser Ser Phe Ser Asp Tyr Val Gln Cys Val Leu 125 120 Ala Phe Thr Gly Val Ala Gly Tyr Ile Thr Tyr Leu Ser Ile Asp Ser 135 140 Ala Leu Phe Val Glu Thr Leu Gly Phe Leu Ala Val Leu Thr Glu Ala 150 155 160 Met Leu Gly Val Pro Gln Leu Tyr Arg Asn His Arg His Gln Ser Thr 170 Glu Gly Met Ser Ile Lys Met Val Leu Met Trp Thr Ser Gly Asp Ala 185 180 Phe Lys Thr Ala Tyr Phe Leu Leu Lys Gly Ala Pro Leu Gln Phe Ser 205 200 195 Val Cys Gly Leu Leu Gln Val Leu Val Asp Leu Ala Ile Leu Gly Gln 215 220 Ala Tyr Ala Phe Ala Arg His Pro Gln Lys Pro Ala Pro His Ala Val 230 235 His Pro Thr Gly Thr Lys Ala Leu 245 248

<210> 2099 <211> 148 <212> PRT <213> Homo sapiens

<400> 2099

Gly Arg Pro Asp Arg Ser Glu Leu Val Arg Met His Ile Leu Glu Glu 10 Thr Phe Ala Glu Pro Ser Leu Gln Ala Thr Gln Met Lys Leu Lys Arg 25 20 Ala Arg Leu Ala Asp Asp Leu Asn Glu Lys Ile Ala Gln Arg Pro Gly 40 Pro Met Glu Leu Val Glu Lys Asn Ile Leu Pro Val Asp Ser Ser Val 50 55 60 Lys Glu Ala Ile Ile Gly Val Gly Lys Glu Asp Tyr Pro His Thr Gln Gly Asp Phe Ser Phe Asp Glu Asp Ser Ser Asp Ala Leu Ser Pro Asp 90 85 Gln Pro Ala Ser Gln Glu Ser Gln Gly Ser Ala Ala Ser Pro Ser Glu 105 100 Pro Lys Val Ser Glu Ser Pro Ser Pro Val Thr Thr Asn Thr Pro Ala 120 125 Gln Phe Ala Ser Val Ser Pro Thr Val Pro Glu Phe Leu Lys Thr Pro 135 Pro Thr Ala Asp 148

<210> 2100 <211> 142 <212> PRT <213> Homo sapiens

<400> 2100 Leu Leu Thr Gln Ala Met Leu Val Leu Pro His Arg Pro Gln Trp Phe 5 10 Thr Pro Gly Pro Arg Leu Gln Ala Gln Gly Pro Cys Gln Glu Gly Trp 20 25 Arg Trp Glu Leu Arg Leu Arg Asn Tyr Val Pro Glu Asp Glu Asp Leu 40 Asn Lys Arg Arg Val Pro Gln Ala Lys Pro Asp Ala Val Gln Glu Lys 55 Val Lys Glu Gln Leu Glu Ala Ala Lys Pro Glu Pro Val Ile Glu Glu . 75 65 70 Val Asp Leu Ala Lys Leu Ala Pro Arg Lys Pro Asp Trp Asp Leu Lys 95 85 90 Arg Asp Val Ala Lys Lys Leu Glu Lys Leu Leu Lys Arg Thr Gln Arg 105 110 100 Ala Ile Ala Glu Leu Ile Arg Glu Arg Leu Lys Gly Gln Glu Asp Ser 115 120 125 Leu Asp Ser Ala Val Asp Ala Ala Thr Glu His Lys Thr Cys

135

<210> 2101 <211> 415 <212> PRT <213> Homo sapiens

130

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Gln Asp Glu Ser Asp Asp Arg Glu Thr Asp Thr Ala Ser Glu Ser Ser
  50
                    55
Tyr Gln Leu Ser Arg His Lys Lys Ser Pro Ser Ser Leu Thr Asn Leu
65
                 70
                           75
Ser Ser Ser Ser Gly Met Thr Ser Leu Ser Ser Val Ser Gly Ser Val
                              90
             85
Met Ser Val Tyr Ser Gly Asp Phe Gly Asn Leu Glu Val Lys Gly Asn
                                          110
        100 105
Ile Gln Phe Ala Ile Glu Tyr Val Glu Ser Leu Lys Glu Leu His Val
      115 120 125
Phe Val Ala Gln Cys Lys Asp Leu Ala Ala Ala Asp Val Lys Lys Gln
                           140
  130
                   135
Arg Ser Asp Pro Tyr Val Lys Ala Tyr Leu Leu Pro Asp Lys Gly Lys
               150
                                155
Met Gly Lys Lys Thr Leu Val Val Lys Lys Thr Leu Asn Pro Val
                                    175
            165
                             170
Tyr Asn Glu Ile Leu Arg Tyr Lys Ile Glu Lys Gln Ile Leu Lys Thr
         180 185
                                           190
Gln Lys Leu Asn Leu Ser Ile Trp His Arg Asp Thr Phe Lys Arg Asn
195 200 205
     195 200
Ser Phe Leu Gly Glu Val Glu Leu Asp Leu Glu Thr Trp Asp Trp Asp
                    215
                                     220
Asn Lys Gln Asn Lys Gln Leu Arg Trp Tyr Pro Leu Lys Arg Lys Thr
                                235
               230
Ala Pro Val Ala Leu Glu Ala Glu Asn Arg Gly Glu Met Lys Leu Ala
            245
                             250
                                              255
Leu Gln Tyr Val Pro Glu Pro Val Pro Gly Lys Leu Pro Thr Thr
                                  270
         260 265
Gly Glu Val His Ile Trp Val Lys Glu Cys Leu Asp Leu Pro Leu Leu
275 280 285
Arg Gly Ser His Leu Asn Ser Phe Val Lys Cys Thr Ile Leu Pro Asp
290 295 300
Thr Ser Arg Lys Ser Arg Gln Lys Thr Arg Ala Val Gly Lys Thr Thr
               310
                                315
Asn Pro Ile Phe Asn His Thr Met Val Tyr Asp Gly Phe Arg Pro Glu
            325
                             330
                                               335
Asp Leu Met Glu Ala Cys Val Glu Leu Thr Val Trp Asp His Tyr Lys
                         345
                                           350
        340
Leu Thr Asn Gln Phe Leu Gly Gly Leu Arg Ile Gly Phe Gly Thr Gly
     355 360 365
Lys Ser Tyr Gly Thr Glu Val Asp Trp Met Asp Ser Thr Ser Glu Glu 370 375 380
Val Ala Leu Trp Glu Lys Met Val Asn Ser Pro Asn Thr Trp Ile Glu
              390
                                395
Ala Thr Leu Pro Leu Arg Met Leu Leu Ile Ala Lys Ile Ser Lys
            405 410
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<210> 2102 <211> 391 <212> PRT <213> Homo sapiens

Asn Phe Ala Ala Ala Ile Pro Gly His Arg Cys Trp Val His Met Leu Asp Asn Asn Thr Gly Ser Gly Asn Glu Thr Gly Ile Leu Ser Glu Asp . 85 90 Ala Leu Leu Arg Ile Ser Ile Pro Leu Asp Ser Asn Leu Arg Pro Glu 100 105 110 Lys Cys Arg Arg Phe Val His Pro Gln Trp Gln Leu Leu His Leu Asn 120 125 115 Gly Thr Ile His Ser Thr Ser Glu Ala Asp Thr Glu Pro Cys Val Asp 135 140 Gly Trp Val Tyr Asp Gln Ser Tyr Phe Pro Ser Thr Ile Val Thr Lys 145 150 155 160 Trp Asp Leu Val Cys Asp Tyr Gln Ser Leu Lys Ser Val Val Gln Phe
165 170 175 170 165 Leu Leu Thr Gly Met Leu Val Gly Gly Ile Ile Gly Gly His Val 190 180 185 Ser Asp Arg Phe Gly Arg Arg Phe Ile Leu Arg Trp Gly Leu Leu Gln 200 205 Leu Ala Ile Thr Asp Thr Cys Ala Ala Phe Ala Pro Thr Phe Pro Val 215 220 Tyr Cys Val Leu Arg Phe Leu Ala Gly Phe Ser Ser Met Ile Ile Ile 235 225 230 Ser Asn Asn Ser Leu Pro Ile Thr Glu Trp Ile Arg Pro Asn Ser Lys 245 250 Ala Leu Val Val Ile Leu Ser Ser Gly Ala Leu Asn Ile Gly Gln Ile 260 265 270 265 Ile Leu Gly Gly Leu Ala Tyr Val Phe Arg Asp Trp Gln Thr Leu His 285 280 275 Val Val Ala Ser Val Pro Phe Phe Val Phe Phe Leu Leu Ser Arg Trp 295 300 Leu Val Glu Ser Ala Arg Trp Leu Ile Ile Thr Asn Lys Leu Asp Glu 315 310 Gly Leu Lys Ala Leu Arg Lys Val Ala Arg Thr Asn Gly Ile Lys Asn 325 330 Ala Glu Glu Thr Leu Asn Ile Glu Val Val Arg Ser Thr Met Gln Glu 340 345 350 Glu Leu Asp Ala Ala Gln Thr Lys Thr Thr Val Trp Asp Leu Phe Arg 360 365 Asn Pro Ser Met Arg Lys Arg Ile Cys Ile Leu Val Phe Leu Arg Lys 375 Lys Asn Leu Lys Glu Lys Ala 390 391

<210> 2103 <211> 490 <212> PRT <213> Homo sapiens

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Asn Ser Val Arg Phe Val Ile Asp Val Gly Val Glu Arg Arg Lys Val
                          105
                                          110
         100
Tyr Asn Pro Arg Ile Arg Ala Asn Ser Leu Val Met Gln Pro Ile Ser
     115
                      120
                                       125
Gln Ser Gln Ala Glu Ile Arg Lys Gln Ile Leu Gly Ser Ser Ser
                   135
Gly Lys Phe Phe Cys Leu Tyr Thr Glu Glu Phe Ala Ser Lys Asp Met
       150
                               155
Thr Pro Leu Lys Pro Ala Glu Met Gln Glu Ala Asn Leu Thr Ser Met
           165 170 175
Val Leu Phe Met Lys Arg Ile Asp Ile Ala Gly Leu Gly His Cys Asp
         180
                          185 190
Phe Met Asn Arg Pro Ala Pro Glu Ser Leu Met Gln Ala Leu Glu Asp
                     200
                                       205
Leu Asp Tyr Leu Ala Ala Leu Asp Asn Asp Gly Asn Leu Ser Glu Phe
                   215
                                    220
Gly Ile Ile Met Ser Glu Phe Pro Leu Asp Pro Gln Leu Ser Lys Ser
        230 · 235
Ile Leu Ala Ser Cys Glu Phe Asp Cys Val Asp Glu Val Leu Thr Ile
                  250 255
            245
Ala Ala Met Val Thr Ala Pro Asn Cys Phe Ser His Val Pro His Gly
                                  270
                        265
Ala Glu Glu Ala Ala Leu Thr Cys Trp Lys Thr Phe Leu His Pro Glu
                      280
Gly Asp His Phe Thr Leu Ile Ser Ile Tyr Lys Ala Tyr Gln Asp Thr
                  295
                                    300
Thr Leu Asn Ser Ser Ser Glu Tyr Cys Val Glu Lys Trp Cys Arg Asp
305 310 315
Tyr Phe Leu Asn Cys Ser Ala Leu Arg Met Ala Asp Val Ile Arg Ala
                             330
       325
Glu Leu Leu Glu Ile Ile Lys Arg Ile Glu Leu Pro Tyr Ala Glu Pro
                           345
Ala Phe Gly Ser Lys Glu Asn Thr Leu Asn Ile Lys Lys Ala Leu Leu
                      360
Ser Gly Tyr Phe Met Gln Ile Ala Arg Asp Val Asp Gly Ser Gly Asn
                   375
                                    380
Tyr Leu Met Leu Thr His Lys Gln Val Ala Gln Leu His Pro Leu Ser
             390
                                395
Gly Tyr Ser Ile Thr Lys Lys Met Pro Glu Trp Val Leu Phe His Lys
                    410 415
            405
Phe Ser Ile Ser Glu Asn Asn Tyr Ile Arg Ile Thr Ser Glu Ile Ser
                           425
Pro Glu Leu Phe Met Gln Leu Val Pro Gln Tyr Tyr Phe Ser Asn Leu
                      440
Pro Pro Ser Glu Ser Lys Asp Ile Leu Gln Gln Val Val Asp His Leu
                   455
                                    460
Ser Pro Val Ser Thr Met Asn Lys Glu Gln Gln Met Cys Glu Thr Cys
              470 475
Pro Glu Thr Glu Gln Arg Cys Thr Leu Gln
             485
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<210> 2104 <211> 131 <212> PRT <213> Homo sapiens

Met Leu Ile Asn Val Asp Arg Tyr Ala Ala Ile Val His Pro Leu Arg 40 Leu Arg His Leu Arg Arg Pro Arg Val Ala Arg Leu Leu Cys Leu Gly 55 60 Val Trp Ala Leu Ile Leu Val Phe Ala Val Pro Ala Ala Arg Val His 70 Arg Pro Ser Arg Cys Arg Tyr Arg Asp Leu Glu Val Arg Leu Cys Phe 85 90 Glu Ser Phe Ser Asp Glu Leu Trp Lys Gly Arg Leu Leu Pro Leu Val 105 110 100 Leu Leu Ala Glu Ala Leu Gly Phe Leu Leu Pro Leu Ala Ala Val Val 115 Tyr Ser Ser 130 131

<210> 2105 <211> 597 <212> PRT <213> Homo sapiens

<400> 2105 Leu Gly Leu Gly Ser Gly Thr Leu Leu Ser Val Ser Glu Tyr Lys Lys 10 Lys Tyr Arg Glu His Val Leu Gln Leu His Ala Arg Val Lys Glu Arg 25 Asn Ala Arg Ser Val Lys Ile Thr Lys Arg Phe Thr Lys Leu Leu Ile 35 40 Ala Pro Glu Ser Ala Ala Pro Glu Glu Ala Leu Gly Pro Ala Glu Glu 60 55 Pro Glu Pro Gly Arg Ala Arg Arg Ser Asp Thr His Thr Phe Asn Arg 75 70 Leu Phe Arg Arg Asp Glu Glu Gly Arg Arg Pro Leu Thr Val Val Leu 90 Gln Gly Pro Ala Gly Ile Gly Lys Thr Met Ala Ala Lys Lys Ile Leu 105 100 Tyr Asp Trp Ala Ala Gly Lys Leu Tyr Gln Gly Gln Val Asp Phe Ala 120 125 115 Phe Phe Met Pro Cys Gly Glu Leu Leu Glu Arg Pro Gly Thr Arg Ser 135 140 Leu Ala Asp Leu Ile Leu Asp Gln Cys Pro Asp Arg Gly Ala Pro Val 150 155 Pro Gln Met Leu Ala Gln Pro Gln Arg Leu Phe Ile Leu Asp Gly 170 175 165 Ala Asp Glu Leu Pro Ala Leu Gly Gly Pro Glu Ala Ala Pro Cys Thr 180 185 190 Asp Pro Phe Glu Ala Ala Ser Gly Ala Arg Val Leu Gly Gly Leu Leu 200 205 Ser Lys Ala Leu Leu Pro Thr Ala Leu Leu Leu Val Thr Thr Arg Ala 215 220 Ala Ala Pro Gly Arg Leu Gln Gly Arg Leu Cys Ser Pro Gln Cys Ala 235 230 Glu Val Arg Gly Phe Ser Asp Lys Asp Lys Lys Lys Tyr Phe Tyr Lys . 255 250 245 Phe Phe Arg Asp Glu Arg Arg Ala Glu Arg Ala Tyr Arg Phe Val Lys 270 260 265 Glu Asn Glu Thr Leu Phe Ala Leu Cys Phe Val Pro Phe Val Cys Trp 280 Ile Val Cys Thr Val Leu Arg Gln Gln Leu Glu Leu Gly Arg Asp Leu 300 295 Ser Arg Thr Ser Lys Thr Thr Thr Ser Val Tyr Leu Leu Phe Ile Thr 315

Ser Val Leu Ser Ser Ala Pro Val Ala Asp Gly Pro Arg Leu Gln Gly 330 Asp Leu Arg Asn Leu Cys Arg Leu Ala Arg Glu Gly Val Leu Gly Arg 345 Arg Ala Gln Phe Ala Glu Lys Glu Leu Glu Gln Leu Glu Leu Arg Gly 360 355 Ser Lys Val Gln Thr Leu Phe Leu Ser Lys Lys Glu Leu Pro Gly Val 380 375 Leu Glu Thr Glu Val Thr Tyr Gln Phe Ile Asp Gln Ser Phe Gln Glu 390 395 Phe Leu Ala Ala Leu Ser Tyr Leu Leu Glu Asp Gly Gly Val Pro Arg 410 415 405 Thr Ala Ala Gly Gly Val Gly Thr Leu Leu Arg Gly Asp Ala Gln Pro 425 420 His Ser His Leu Val Leu Thr Thr Arg Phe Leu Phe Gly Leu Leu Ser 445 440 435 Ala Glu Arg Met Arg Asp Ile Glu Arg His Phe Gly Cys Met Val Ser 460 455 Glu Arg Val Lys Gln Glu Ala Leu Arg Trp Val Gln Gly Gln Gly Gln 470 475 Gly Cys Pro Gly Val Ala Pro Glu Val Thr Glu Gly Ala Lys Gly Leu 485 490 Glu Asp Thr Glu Glu Pro Glu Glu Glu Glu Glu Gly Glu Glu Pro Asn 500 505 Tyr Pro Leu Glu Leu Leu Tyr Cys Leu Tyr Glu Thr Gln Glu Asp Ala 525 520 Phe Val Arg Gln Ala Leu Cys Arg Phe Pro Glu Leu Ala Leu Gln Arg 540 535 Val Arg Phe Cys Arg Met Asp Val Ala Val Leu Ser Tyr Cys Val Arg 550 55**5** Cys Cys Pro Ala Gly Gln Ala Leu Arg Leu Ile Ser Cys Arg Leu Val 570 565 Ala Ala Gln Glu Lys Lys Lys Ser Leu Gly Lys Arg Leu Gln Ala 580 585 Ser Leu Gly Gly Gly 595 597

<210> 2106 <211> 141 <212> PRT <213> Homo sapiens

<400> 2106 Ser Gly Arg Pro Thr Arg Pro Ala Lys Pro Thr Gly Gln Gly Met Gly 10 Arg Phe Met Leu Thr'Leu Val Cys Gln Gly Ser Ile Met Met Ser Ala 25 Arg Asp Leu Ile Met Asn Asn Leu Thr Glu Leu Gln Pro Gly Leu Phe 45 35 40 His His Leu Arg Phe Leu Glu Glu Leu Arg Leu Ser Gly Asn His Leu 60 55 Ser His Ile Pro Gly Gln Ala Phe Ser Gly Leu Tyr Ser Leu Lys Ile 70 75 Leu Met Leu His Asn Asn Gln Leu Gly Gly Ile Pro Ala Gln Ala Leu 85 90 Trp Glu Leu Pro Ser Leu Gln Ser Leu Arg Leu Asp Ala Asn Leu Ile 105 1.00 Ser Leu Val Pro Glu Arg Ser Phe Glu Gly Leu Ser Ser Leu Arg His 115 120 Leu Trp Leu Asp Asp Asn Ala Leu Thr Glu Ile Pro Ser 135

<210> 2107 <211> 121 <212> PRT <213> Homo sapiens

<400> 2107 Ile Thr Pro Leu Gly Leu Gly Ala Ala Asp Met Cys Ala Phe Pro Trp 10 Leu Leu Leu Leu Leu Leu Gln Glu Gly Ser Gln Arg Arg Leu Trp 20 25 Arg Trp Cys Gly Ser Glu Glu Val Val Ala Val Leu Gln Glu Ser Ile 45 40 Ser Leu Pro Leu Glu Ile Pro Pro Asp Glu Glu Val Glu Asn Ile Ile 55 Trp Ser Ser His Lys Ser Leu Ala Thr Val Val Pro Gly Lys Glu Gly 70 75 His Pro Ala Thr Ile Met Val Thr Asn Pro His Tyr Gln Gly Gln Ile 85 90 Leu Thr Met Leu Leu Arg Ser Leu Gln Gln Pro Ser Ala Ser Trp Pro 100 105 Arg Asp Cys Ser Ser Ser Cys Ser Trp 120 121 115

<210> 2108 <211> 104 <212> PRT <213> Homo sapiens

<400> 2108 Ile Gly Ile Ser Cys Pro Ala Thr Ile Phe Val Pro Met Phe Ser His **5** . 10 1 Ser Leu Ile Gly Ile Gly Glu Glu Tyr Gln Leu Pro Tyr Tyr Asn Met 20 25 Val Pro Ser Asp Pro Ser Tyr Glu Asp Met Arg Glu Val Val Cys Val 45 35 40 Lys Arg Leu Arg Pro Ile Val Ser Asn Arg Trp Asn Ser Asp Glu Cys 55 60 Leu Arg Ala Val Leu Lys Leu Met Ser Glu Cys Trp Ala His Asn Pro 75 70 Ala Ser Arg Leu Thr Ala Leu Arg Ile Lys Lys Thr Leu Ala Lys Met 85 90 Val Glu Ser Gln Asp Val Lys Ile

<210> 2109 <211> 216 <212> PRT <213> Homo sapiens

Ser Ser Ile Ile Pro Asn Asn Ser Asp Thr Arg Lys Ala Thr Glu Thr 35 40 Thr Ser Leu Ser Ser Lys Pro Glu Tyr Val Asn Pro Asp Phe Arg Trp 55 60 Ser Lys Asp Pro Ser Ser Lys Ser Gly Asn Leu Leu Glu Thr Ser Glu 75 Val Gly Trp Thr Ser Asn Pro Glu Glu Leu Asp Pro Ile Arg Leu Ala 90 85 Leu Leu Gly Lys Ser Gly Leu Ser Cys Gln Val Gly Ser Ala Thr Ser 100 105 His Pro Val Ser Cys Gln Glu Pro Ile Asp Glu Asp Gln Arg Ile Ser 120 125 115 Pro Lys Asp Lys Ser Thr Ala Gly Arg Glu Phe Ser Gly Gln Val Ser 135 140 His Gl'n Thr Thr Ser Glu Asn Gln Cys Thr Pro Ile Pro Ser Ser Thr 155 150 Val His Ser Ser Val Ala Asp Met Gln Asn Met Pro Ala Ala Val His 170 165 Ala Leu Leu Thr Gln Pro Ser Leu Ser Ala Ala Pro Phe Ala Gln Arg 185 190 Tyr Leu Gly Thr Leu Pro Ser Thr Gly Ser Thr Thr Leu Pro Gln Cys 195 200 205 His Ala Gly Asn Ala Thr Val Trp 215 216

<210> 2110 <211> 242 <212> PRT <213> Homo sapiens

<400> 2110 Pro Leu Arg Leu Thr Leu Met Glu Glu Val Leu Leu Gly Leu Lys 10 1 Asp Arg Glu Gly Tyr Thr Ser Phe Trp Asn Asp Cys Ile Ser Ser Gly 25 20 Leu Arg Gly Cys Met Leu Ile Glu Leu Pro Leu Arg Gly Arg Leu Gln 40 Leu Glu Ala Cys Gly Met Arg Arg Lys Ser Leu Leu Thr Arg Lys Val 55 Ile Cys Lys Ser Asp Ala Pro Thr Gly Asp Val Leu Leu Asp Glu Ala 70 75 Leu Lys His Val Lys Glu Thr Gln Pro Pro Glu Thr Val Gln Asn Trp 90 85 Ile Glu Leu Leu Ser Gly Glu Thr Trp Asn Pro Leu Lys Leu His Tyr 105 110 100 Gln Leu Arg Asn Val Arg Glu Arg Leu Ala Lys Asn Leu Val Glu Lys 120 125 115 Gly Val Leu Thr Thr Glu Lys Gln Asn Phe Leu Leu Phe Asp Met Thr 135 140 Thr His Pro Leu Thr Asn Asn Asn Ile Lys Gln Arg Leu Ile Lys Lys 150 155 Val Gln Glu Ala Val Leu Asp Lys Trp Val Asn Asp Pro His Arg Met 170 175 165 Asp Arg Arg Leu Leu Ala Leu Ile Tyr Leu Ala His Ala Ser Asp Val 180 185 190 Leu Glu Asn Ala Phe Ala Pro Leu Leu Asp Glu Gln Tyr Asp Leu Ala 195 200 205 Thr Lys Arg Val Arg Gln Leu Leu Asp Leu Asp Pro Glu Val Glu Cys

235

210 215 220 Leu Lys Ala Asn Thr Asn Glu Val Leu Trp Ala Val Val Ala Ala Phe

Thr Lys 242

> <210> 2111 <211> 147 <212> PRT <213> Homo sapiens

<400> 2111 Ile Val Ser Phe His Leu Ser Gly Phe Lys Lys Phe Val Arg Pro Phe
1 10 15 Ser Phe Leu Ser Val His Gly Leu Gln Val Asp Glu Tyr His Ser Val 25 20 His Gln Lys Leu Ser Ala Asp Met Ala Asp His Ser Asn Leu Ile Arg 40 35 Ser Leu Leu Val Gly Ala Glu Asp Ala Arg Leu Met Arg Asp Met Lys 55 Thr Met Lys Ser Arg Tyr Met Glu Leu Tyr Asp Leu Asn Arg Asp Leu 75 70 Leu Asn Gly Tyr Lys Ile Arg Trp Asn Asn His Thr Glu Leu Leu Gly 85 90 Asn Leu Lys Ala Val Asn Gln Ala Ile Gln Arg Ala Gly Arg Leu Arg 105 110 100 Val Gly Lys Pro Lys Asn Gln Val Ile Thr Ala Cys Arg Asp Ala Ile 120 125 115 Arg Ser Asn Asn Ile Asn Thr Leu Phe Lys Ile Met Arg Val Gly Thr 135 Ala Ser Ser 145 147

<210> 2112 <211> 894 <212> PRT <213> Homo sapiens

<400> 2112 Lys Lys Ala Ile Thr Cys Gly Glu Lys Glu Lys Gln Asp Leu Ile Lys 5 10 Ser Leu Ala Met Leu Lys Asp Gly Phe Arg Thr Asp Arg Gly Ser His 20 25 Ser Asp Leu Trp Ser Ser Ser Ser Leu Glu Ser Ser Ser Phe Pro 40 35 Leu Pro Lys Gln Tyr Leu Asp Val Ser Ser Gln Thr Asp Ile Ser Gly 55 60 Ser Phe Gly Ile Asn Ser Asn Asn Gln Leu Ala Glu Lys Val Arg Leu 75 70 Arg Leu Arg Tyr Glu Glu Ala Lys Arg Arg Ile Ala Asn Leu Lys Ile 90 85 Gln Leu Ala Lys Leu Asp Ser Glu Ala Trp Pro Gly Val Leu Asp Ser 110 100 105 Glu Arg Asp Arg Leu Ile Leu Ile Asn Glu Lys Glu Glu Leu Leu Lys 115 120 125 Glu Met Arg Phe Ile Ser Pro Arg Lys Trp Thr Gln Gly Glu Val Glu 140 135 Gln Leu Glu Met Ala Arg Lys Arg Leu Glu Lys Asp Leu Gln Ala Ala _ 155 150 Arg Asp Thr Gln Ser Lys Ala Leu Thr Glu Arg Leu Lys Leu Asn Ser 170

Lys Arg Asn Gln Leu Val Arg Glu Leu Glu Glu Ala Thr Arg Gln Val 180 185 190 Ala Thr Leu His Ser Gln Leu Lys Ser Leu Ser Ser Ser Met Gln Ser 200 Leu Ser Ser Gly Ser Ser Pro Gly Ser Leu Thr Ser Ser Arg Gly Ser 215 220 Leu Val Ala Ser Ser Leu Asp Ser Ser Thr Ser Ala Ser Phe Thr Asp 230 235 Leu Tyr Tyr Asp Pro Phe Glu Gln Leu Asp Ser Glu Leu Gln Ser Lys 245 250 Val Glu Phe Leu Leu Glu Gly Ala Thr Gly Phe Arg Pro Ser Gly 265 Cys Ile Thr Thr Ile His Glu Asp Glu Val Ala Lys Thr Gln Lys Ala 280 285 Glu Gly Gly Arg Leu Gln Ala Leu Arg Ser Leu Ser Gly Thr Pro 295 · 300 Lys Ser Met Thr Ser Leu Ser Pro Arg Ser Ser Leu Ser Ser Pro Ser 310 315 Pro Pro Cys Ser Pro Leu Met Ala Asp Pro Leu Leu Ala Gly Asp Ala 325 330 Phe Leu Asn Ser Leu Glu Phe Glu Asp Pro Glu Leu Ser Ala Thr Leu 340 345 Cys Glu Leu Ser Leu Gly Asn Ser Ala Gln Glu Arg Tyr Arg Leu Glu 360 365 355 Glu Pro Gly Thr Glu Gly Lys Gln Leu Gly Gln Ala Val Asn Thr Ala 375 380 Gln Gly Cys Gly Leu Lys Val Ala Cys Val Ser Ala Ala Val Ser Asp 390 395 Glu Ser Val Ala Gly Asp Ser Gly Val Tyr Glu Ala Ser Val Gln Arg 405 410 Leu Gly Ala Ser Glu Ala Ala Ala Phe Asp Ser Asp Glu Ser Glu Ala 420 425 Val Gly Ala Thr Arg Ile Gln Ile Ala Leu Lys Tyr Asp Glu Lys Asn 435 440 445 Lys Gln Phe Ala Ile Leu Ile Ile Gln Leu Ser Asn Leu Ser Ala Leu 455 460 Leu Gln Gln Asp Gln Lys Val Asn Ile Arg Val Ala Val Leu Pro 470 475 Cys Ser Glu Ser Thr Thr Cys Leu Phe Arg Thr Arg Pro Leu Asp Ala 485 490 Ser Asp Thr Leu Val Phe Asn Glu Val Phe Trp Val Ser Met Ser Tyr 505 Pro Ala Leu His Gln Lys Thr Leu Arg Val Asp Val Cys Thr Thr Asp 520 525 Arg Ser His Leu Glu Glu Cys Leu Gly Gly Ala Gln Ile Ser Leu Ala 535 540 Glu Val Cys Arg Ser Gly Glu Arg Ser Thr Arg Trp Tyr Asn Leu Leu 550 555 Ser Tyr Lys Tyr Leu Lys Lys Gln Ser Arg Glu Leu Lys Pro Val Gly 570 Val Met Ala Pro Ala Ser Gly Pro Ala Ser Thr Asp Ala Val Ser Ala 580 585 Leu Leu Glu Gln Thr Ala Val Glu Leu Glu Lys Arg Gln Glu Gly Arg 600 605 Ser Ser Thr Gln Thr Leu Glu Asp Ser Trp Arg Tyr Glu Glu Thr Ser 615 620 Glu Asn Glu Ala Val Ala Glu Glu Glu Glu Glu Glu Val Glu Glu Glu 630 635 Glu Gly Glu Glu Asp Val Phe Thr Glu Lys Ala Ser Pro Asp Met Asp 650 645 Gly Tyr Pro Ala Leu Lys Val Asp Lys Glu Thr Asn Thr Glu Thr Pro 660 665 Ala Pro Ser Pro Thr Val Val Arg Pro Lys Asp Arg Arg Val Gly Thr 680 685

Pro Ser Gln Gly Pro Phe Leu Arg Gly Ser Thr Ile Ile Arg Ser Lys Thr Phe Ser Pro Gly Pro Gln Ser Gln Tyr Val Cys Arg Leu Asn Arg Ser Asp Ser Asp Ser Ser Thr Leu Ser Lys Lys Pro Pro Phe Val Arg Asn Ser Leu Glu Arg Arg Ser Val Arg Met Lys Arg Pro Ser Pro Pro Pro Gln Pro Ser Ser Val Lys Ser Leu Arg Ser Glu Arg Leu Ile Arg Thr Ser Leu Asp Leu Glu Leu Asp Leu Gln Ala Thr Arg Thr Trp His Ser Gln Leu Thr Gln Glu Ile Ser Val Leu Lys Glu Leu Lys Glu Gln Leu Glu Gln Ala Lys Ser His Gly Glu Lys Glu Leu Pro Gln Trp Leu Arg Glu Asp Glu Arg Phe Arg Leu Leu Leu Arg Met Leu Glu Lys Arg Met Asp Arg Ala Glu His Met Gly Glu Leu Gln Thr Asp Lys Met Met Arg Ala Ala Ala Lys Asp Val His Arg Leu Arg Gly Gln Ser Cys Lys Glu Pro Pro Glu Val Gln Ser Phe Arg Glu Lys Met Ala Phe Phe Thr Arg Pro Arg Met Asn Ile Pro Ala Leu Ser Ala Asp Asp Val 

<210> 2113 <211> 518 <212> PRT <213> Homo sapiens

<400> 2113

Pro His Pro Ile Arg Phe Ser Lys Leu Cys Val Ser Phe Asn Asn Gln Glu Tyr Asn Gln Phe Cys Val Ile Glu Glu Ala Ser Lys Ala Asn Glu Val Leu Glu Asn Leu Thr Gln Gly Lys Met Cys Leu Val Pro Gly Lys Thr Arg Lys Leu Leu Phe Lys Phe Val Ala Lys Thr Glu Asp Val Gly Lys Lys Ile Glu Ile Thr Ser Val Asp Leu Ala Leu Gly Asn Glu Thr Gly Arg Cys Val Val Leu Asn Trp Gln Gly Gly Gly Asp Ala Ala Ser Ser Gln Glu Ala Leu Gln Ala Ala Arg Ser Phe Lys Arg Arg Pro Lys Leu Pro Asp Asn Glu Val His Trp Gly Ser Ile Ile Ile Gln Ala Ser Thr Met Ile Ile Ser Arg Val Pro Asn Ile Ser Val His Leu Leu His Glu Pro Pro Ala Leu Thr Asn Glu Met Tyr Cys Leu Val Val Thr Val Gln Ser His Glu Lys Thr Gln Ile Arg Asp Val Lys Leu Thr Ala Gly Leu Lys Pro Gly Gln Asp Ala Asn Leu Thr Gln Lys Thr His Val Thr Leu His Gly Thr Glu Leu Cys Asp Glu Ser Tyr Pro Ala Leu Leu Thr Asp Ile Pro Val Gly Asp Leu His Pro Gly Glu Gln Leu Glu Lys 

Met Leu Tyr Val Arg Cys Gly Thr Val Gly Ser Arg Met Phe Leu Val 235 230 Tyr Val Ser Tyr Leu Ile Asn Thr Thr Val Glu Glu Lys Glu Ile Val 245 250 Cys Lys Cys His Lys Asp Glu Thr Val Thr Ile Glu Thr Val Phe Pro 265 260 270 Phe Asp Val Ala Val Lys Phe Val Ser Thr Lys Phe Glu His Leu Glu 280 285 275 Arg Val Tyr Ala Asp Ile Pro Phe Leu Leu Met Thr Asp Leu Leu Ser 295 300 Ala Ser Pro Trp Ala Leu Thr Ile Val Ser Ser Glu Leu His Leu Ala 310 315 Pro Ser Met Thr Thr Val Asp Gln Leu Glu Ser Gln Val Asp Asn Val 330 325 Ile Leu Gln Thr Gly Glu Ser Ala Ser Glu Cys Phe Cys Leu Gln Cys 340 345 Pro Ser Leu Gly Asn Ile Glu Gly Gly Val Ala Thr Gly His Tyr Ile 360 365 Ile Ser Trp Lys Arg Thr Ser Ala Met Glu Asn Ile Pro Ile Ile Thr 375 Thr Val Ile Thr Leu Pro His Val Ile Val Glu Asn Ile Pro Leu His 390 395 Val Asn Ala Asp Leu Pro Ser Phe Gly Arg Val Arg Glu Ser Leu Pro 405 410 Val Lys Tyr His Leu Gln Asn Lys Thr Asp Leu Val Gln Asp Val Glu 430 420 425 Ile Ser Val Glu Pro Ser Asp Ala Phe Met Phe Ser Gly Leu Lys Gln 440 445 Ile Arg Leu Arg Ile Leu Pro Gly Thr Glu Glu Met Leu Tyr Asn 455 460 Phe Tyr Pro Leu Met Ala Gly Tyr Gln Gln Leu Pro Ser Leu Asn Ile 470 475 Asn Leu Leu Arg Phe Pro Asn Phe Thr Asn Gln Leu Leu Arg Arg Phe 485 490 Ile Pro Thr Ser Ile Phe Val Lys Pro Gln Gly Arg Leu Met Asp Asp 500 505 Thr Ser Ile Ala Ala Ala 515 518

<210> 2114 <211> 474 <212> PRT <213> Homo sapiens

<400> 2114 Ala Ala Ala Asp Leu Ala Asn Ser Asn Ala Gly Ala Ala Val Gly Arg Lys Ala Gly Pro Arg Ser Pro Pro Ser Ala Pro Ala Pro Ala Pro Pro 20 25 Pro Pro Ala Pro Ala Pro Pro Thr Leu Gly Asn Asn His Gln Glu Ser 35 40 Pro Gly Trp Arg Cys Cys Arg Pro Thr Leu Arg Glu Arg Asn Ala Leu 55 60 Met Phe Asn Asn Glu Leu Met Ala Asp Val His Phe Val Val Gly Pro Pro Gly Ala Thr Arg Thr Val Pro Ala His Lys Tyr Val Leu Ala Val 90 85 Gly Ser Ser Val Phe Tyr Ala Met Phe Tyr Gly Asp Leu Ala Glu Val 100 105 110 Lys Ser Glu Ile His Ile Pro Asp Val Glu Pro Ala Ala Phe Leu Ile 120 125

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Leu Leu Lys Tyr Met Tyr Ser Asp Glu Ile Asp Leu Glu Ala Asp Thr
                     135
                                       140
Val Leu Ala Thr Leu Tyr Ala Ala Lys Lys Tyr Ile Val Pro Ala Leu
                 150
                                  155
Ala Lys Ala Cys Val Asn Phe Leu Glu Thr Ser Leu Glu Ala Lys Asn
                              170
             165
Ala Cys Val Leu Leu Ser Gln Ser Arg Leu Phe Glu Glu Pro Glu Leu
                           185
                                     190
Thr Gln Arg Cys Trp Glu Val Ile Asp Ala Gln Ala Glu Met Ala Leu
                       200
Arg Ser Glu Gly Phe Cys Glu Ile Asp Arg Gln Thr Leu Glu Ile Ile
          215
                          220
Val Thr Arg Glu Ala Leu Asn Thr Lys Glu Ala Val Val Phe Glu Ala
                 230
                                   235
Val Leu Asn Trp Ala Glu Ala Glu Cys Lys Arg Gln Gly Leu Pro Ile
             245
                               250
Thr Pro Arg Asn Lys Arg His Val Leu Gly Arg Ala Leu Tyr Leu Val
                                             270
                           265
Arg Ile Pro Thr Met Thr Leu Glu Glu Phe Ala Asn Gly Ala Ala Gln
                        280
                                          285
      275
Ser Asp Ile Leu Thr Leu Glu Glu Thr His Ser Ile Phe Leu Trp Tyr .
            295
                                      300
Thr Ala Thr Asn Lys Pro Arg Leu Asp Phe Pro Leu Thr Lys Arg Lys
                         315
                310
Gly Leu Ala Pro Gln Arg Cys His Arg Phe Gln Ser Ser Ala Tyr Arg
                               330
             325
                                                335
Ser Asn Gln Trp Arg Tyr Arg Gly Arg Cys Asp Ser Ile Gln Phe Ala
          340
                           345
Val Asp Arg Arg Val Phe Ile Ala Gly Leu Gly Leu Tyr Gly Ser Ser
                        360
Ser Gly Lys Ala Glu Tyr Ser Val Lys Ile Glu Leu Lys Arg Leu Gly
                    375
                                      380
Val Val Leu Ala Gln Asn Leu Thr Lys Phe Met Ser Asp Gly Ser Ser
                 390
                            395
Asn Thr Phe Pro Val Trp Phe Glu His Pro Val Gln Val Glu Gln Asp
             405
                               410
Thr Phe Tyr Thr Ala Ser Ala Val Leu Asp Gly Ser Glu Leu Ser Tyr
                            425
          420
Phe Gly Gln Glu Gly Met Thr Glu Val Gln Cys Gly Lys Val Ala Phe
                        440
                                          445
Gln Phe Gln Cys Ser Ser Asp Ser Thr Asn Gly Thr Gly Val Gln Gly
                    455
Gly Gln Ile Pro Glu Leu Ile Phe Tyr Ala
                470
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<210> 2115 <211> 383 <212> PRT <213> Homo sapiens

Pro Asn Glu Cys Arg Thr Cys Lys Cys Asn Gly His Ala Asp Thr Cys 90 85 His Phe Asp Val Asn Val Trp Glu Ala Ser Gly Asn Arg Ser Gly Gly 110 105 100 Val Cys Asp Asp Cys Gln His Asn Thr Glu Gly Gln Tyr Cys Gln Arg 120 125 115 Cys Lys Pro Gly Phe Tyr Arg Asp Leu Arg Arg Pro Phe Ser Ala Pro 135 140 Asp Ala Cys Lys Pro Cys Ser Cys His Pro Val Gly Ser Ala Val Leu 150 155 Pro Ala Asn Ser Val Thr Phe Cys Asp Pro Ser Asn Gly Asp Cys Pro 170 175 165 Cys Lys Pro Gly Val Ala Gly Arg Arg Cys Asp Arg Cys Met Val Gly 185 Tyr Trp Gly Phe Gly Asp Tyr Gly Cys Arg Pro Cys Asp Cys Ala Gly 200 195 Ser Cys Asp Pro Ile Thr Gly Asp Cys Ile Ser Ser His Thr Asp Ile 215 220 Asp Trp Tyr His Glu Val Pro Asp Phe Arg Pro Val His Asn Lys Ser 230 235 240 Glu Pro Pro Trp Glu Trp Glu Asp Ala Gln Gly Phe Ser Ala Leu Leu 250 His Ser Gly Lys Cys Glu Cys Lys Glu Gln Thr Leu Gly Asn Ala Lys 260 265 Ala Phe Cys Gly Met Lys Tyr Ser Tyr Val Leu Lys Ile Lys Ile Leu 280 · 285 275 Ser Ala His Asp Lys Gly Thr His Val Glu Val Asn Val Lys Ile Lys 295 300 Lys Val Leu Lys Ser Thr Lys Leu Lys Ile Phe Arg Gly Lys Arg Thr 310 315 Leu Tyr Pro Glu Ser Trp Thr Asp Arg Gly Cys Thr Cys Pro Ile Leu 330 335 325 Asn Pro Gly Leu Glu Tyr Leu Val Ala Gly His Glu Asp Ile Arg Thr 345 350 Gly Lys Leu Ile Val Asn Met Lys Ser Phe Val Gln His Trp Lys Pro 355 360 Ser Leu Gly Arg Lys Val Met Asp Ile Leu Lys Arg Glu Cys Lys 380 383 375

<210> 2116 <211> 127 <212> PRT

<213> Homo sapiens

<400> 2116 Met Thr Ala Ala Ala Thr Ala Thr Val Leu Lys Glu Gly Val Leu Glu 10 Lys Arg Ser Gly Gly Leu Leu Gln Leu Trp Lys Arg Lys Arg Cys Val 25 Leu Thr Glu Arg Gly Leu Gln Leu Phe Glu Ala Lys Gly Thr Gly Gly 40 35 Arg Pro Lys Glu Leu Ser Phe Ala Arg Ile Lys Ala Val Glu Cys Val 55 60 Glu Ser Thr Gly Arg His Ile Tyr Phe Thr Leu Val Thr Glu Gly Gly 70 75 Gly Glu Ile Asp Phe Arg Cys Pro Leu Glu Asp Pro Gly Trp Asn Ala Gln Ile Thr Leu Gly Leu Val Lys Phe Lys Asn Gln Gln Ala Ile Gln 100 105 Thr Val Arg Ala Arg Gln Ser Leu Gly Thr Gly Thr Leu Val Ser 120 115

<210> 2117 <211> 180 <212> PRT <213> Homo sapiens

<400> 2117 Ser Gly Ser Ser His Ala Ser Asp Gly Ser Gly Phe Gln Glu Leu Arg 10 5 Ile Cys Ser Glu Asp Gln Thr Pro Leu Ile Ala Gly Met Cys Ser Leu 20 25 Pro Met Ala Arg Tyr Tyr Ile Ile Lys Tyr Ala Asp Gln Lys Ala Leu 40 Tyr Thr Arg Asp Gly Gln Leu Leu Val Gly Asp Pro Val Ala Asp Asn 50 55 Cys Cys Ala Glu Lys Ile Cys Thr Leu Pro Asn Arg Gly Leu Asp Arg 70 75 Thr Lys Val Pro Ile Phe Leu Gly Ile Gln Gly Gly Ser Arg Cys Leu 90 85 Ala Cys Val Glu Thr Glu Glu Gly Pro Ser Leu Gln Leu Glu Asp Val 110 100 105 Asn Ile Glu Glu Leu Tyr Lys Gly Gly Glu Glu Ala Thr Arg Phe Thr 115 120 125 125 115 120 Phe Phe Gln Ser Ser Ser Gly Ser Ala Phe Arg Leu Glu Ala Ala Ala 130 135 Trp Pro Gly Trp Phe Leu Cys Gly Pro Ala Glu Pro Gln Gln Pro Val 155 150 Gln Leu Thr Lys Glu Ser Glu Pro Ser Ala Arg Thr Lys Phe Tyr Phe 165 170 Glu Gln Ser Trp 180

<210> 2118 <211> 96 <212> PRT <213> Homo sapiens

 2400> 2118

 Phe Ile Leu Gln Ala Val Leu Gln Leu Ser Ser Gln Glu Ala Arg Tyr

 1
 5

 Lys Ala Phe Gly Thr Cys Val Ser His Ile Gly Ala Ile Leu Ala Phe 20

 20
 25

 30

 Tyr Thr Pro Ser Val Ile Ser Ser Val Met His Arg Val Ala Arg Cys 35

 Ala Ala Pro His Val His Ile Leu Leu Ala Asn Phe Tyr Leu Leu Phe 50

 Pro Pro Met Val Asn Pro Ile Ile Tyr Gly Val Lys Thr Lys Gln Ile 65

 Arg Asp Ser Leu Gly Ser Ile Pro Glu Lys Gly Cys Val Asn Arg Glu 95

<210> 2119 <211> 237 <212> PRT

## <213> Homo sapiens

<400> 2119 Arg His Glu Pro Ser Cys Ser Asn Gly Val Ala Ser Thr Lys Ser Lys 10 Gln Asn His Ser Lys Tyr Pro Ala Pro Ser Ser Ser Ser Ser Ser 20 25 Ser Ser Ser Ser Ser Ser Pro Ser Ser Val Asn Tyr Ser Glu Ser 45 35 40 Asn Ser Thr Asp Ser Thr Lys Ser Gln His His Ser Ser Thr Ser Asn 60 55 Gln Glu Thr Ser Asp Ser Glu Met Glu Met Glu Ala Glu His Tyr Pro 70 Asn Gly Val Leu Gly Ser Met Ser Thr Arg Ile Val Asn Gly Ala Tyr 90 85 Lys His Glu Asp Leu Gln Thr Asp Glu Ser Ser Met Asp Asp Arg His 100 110 105 Pro Arg Arg Gln Leu Cys Gly Gly Asn Gln Ala Ala Thr Glu Arg Ile 115 120 125 120 Ile Leu Phe Gly Arg Glu Leu Gln Ala Leu Ser Glu Gln Leu Gly Arg 135 Glu Tyr Gly Lys Asn Leu Ala His Thr Glu Met Leu Gln Asp Ala Phe 155 145 150 Ser Leu Leu Ala Tyr Ser Asp Pro Trp Ser Cys Pro Val Gly Gln Gln 170 175 165 Leu Asp Pro Ile Gln Arg Glu Pro Val Cys Ala Ala Leu Asn Ser Ala 185 190 180 Ile Leu Glu Ser Gln Asn Leu Pro Lys Gln Pro Pro Leu Met Leu Ala 195 200 205 Leu Gly Gln Ala Ser Glu Cys Leu Arg Leu Met Ala Arg Ala Gly Leu 220 210 215 Gly Ser Cys Ser Phe Ala Arg Val Asp Asp Tyr Leu His 230

<210> 2120 <211> 189 <212> PRT <213> Homo sapiens

<400> 2120 Tyr Phe Gly Leu Asn Leu His Val Gln His Leu Gly Asn Asn Val Phe 5 10 Leu Leu Gln Thr Leu Phe Gly Ala Val Ile Leu Leu Ala Asn Cys Val 20 25 Ala Pro Trp Ala Leu Lys Tyr Met Asn Arg Arg Ala Ser Gln Met Leu 45 35 40 Leu Met Phe Leu Leu Ala Ile Cys Leu Leu Ala Ile Ile Phe Val Pro 55 60 Gln Glu Met Gln Met Leu Arg Glu Val Leu Ala Thr Leu Gly Leu Gly 70 75 Ala Ser Ala Leu Ala Asn Thr Leu Ala Phe Ala His Gly Asn Glu Val 8.5 90 Ile Pro Thr Ile Ile Arg Ala Arg Ala Met Gly Ile Asn Ala Thr Phe 100 105 110 Ala Asn Ile Ala Gly Ala Leu Ala Pro Leu Met Met Ile Leu Ser Val 120 Tyr Ser Pro Pro Leu Pro Trp Ile Ile Tyr Gly Val Phe Pro Phe Ile 130 135 140 130 135 140 Ser Gly Phe Ala Phe Leu Leu Leu Pro Glu Thr Arg Asn Lys Pro Leu 150 155

<210> 2121 <211> 185 <212> PRT <213> Homo sapiens

<400> 2121 Arg Ser Phe Val Leu Asp Thr Ala Ser Ala Ile Cys Asn Tyr Asn Ala 10 His Tyr Lys Asn His Pro Lys Tyr Trp Cys Arg Gly Tyr Phe Arg Asp 25 Tyr Cys Asn Ile Ile Ala Phe Ser Pro Asn Ser Thr Asn His Val Ala 35 40 Leu Arg Asp Thr Gly Asn Gln Leu Ile Val Thr Met Ser Cys Leu Thr 55 60 Lys Glu Asp Thr Gly Trp Tyr Trp Cys Gly Ile Gln Arg Asp Phe Ala 75 70 Arg Asp Asp Met Asp Phe Thr Glu Leu Ile Val Thr Asp Asp Lys Gly 90 Thr Leu Ala Asn Asp Phe Trp Ser Gly Lys Asp Leu Ser Gly Asn Lys 100 105 110 Thr Arg Ser Cys Lys Ala Pro Lys Val Val Arg Lys Ala Asp Arg Ser 125 120 Arg Thr Ser Ile Leu Ile Ile Cys Ile Leu Ile Thr Gly Leu Gly Ile 135 140 Ile Ser Val Ile Ser His Leu Thr Lys Arg Arg Arg Ser Gln Arg Asn 150 155 Arg Arg Val Gly Asn Thr Leu Lys Pro Phe Ser Arg Val Leu Thr Pro 165 Lys Glu Met Ala Pro Thr Glu Gln Met

<210> 2122 <211> 268 <212> PRT <213> Homo sapiens

<400> 2122 Phe Val Leu Gly Ile Leu Ala Leu Ser His Thr Ile Ser Pro Phe Met 10 Asn Lys Phe Phe Pro Ala Ser Phe Pro Asn Arg Gln Tyr Gln Leu Leu 25 Phe Thr Gln Gly Ser Gly Glu Asn Lys Glu Glu Ile Ile Asn Tyr Glu 40 35 Phe Asp Thr Lys Asp Leu Val Cys Leu Gly Leu Ser Ser Ile Val Gly 60 55 Val Trp Tyr Leu Leu Arg Lys His Trp Ile Ala Asn Asn Leu Phe Gly 70 75 Leu Ala Phe Ser Leu Asn Gly Val Glu Leu Leu His Leu Asn Asn Val 90 Ser Thr Gly Cys Ile Leu Leu Gly Gly Leu Phe Ile Tyr Asp Val Phe 100 105 110 Trp Val Phe Gly Thr Asn Val Met Val Thr Val Ala Lys Ser Phe Glu 125 120

Ala Pro Ile Lys Leu Val Phe Pro Gln Asp Leu Leu Glu Lys Gly Leu Glu Ala Asn Asn Phe Ala Met Leu Gly Leu Gly Asp Val Val Ile Pro Gly Ile Phe Ile Ala Leu Leu Leu Arg Phe Asp Ile Ser Leu Lys Lys Asn Thr His Thr Tyr Phe Tyr Thr Ser Phe Ala Ala Tyr Ile Phe Gly Leu Gly Leu Thr Ile Phe Ile Met His Ile Phe Lys His Ala Gln Pro Ala Leu Leu Tyr Leu Val Pro Ala Cys Ile Gly Phe Pro Val Leu Val Ala Leu Ala Lys Gly Glu Val Thr Glu Met Phe Ser Tyr Glu Glu Ser Asn Pro Lys Asp Pro Ala Ala Val Thr Glu Ser Lys Glu Gly Thr Glu Ala Ser Ala Ser Lys Gly Leu Glu Lys Lys Glu Lys 

<210> 2123 <211> 362 <212> PRT <213> Homo sapiens

<400> 2123 Cys Gln Pro Met Leu Val Thr Arg Lys Asn His Pro Lys Leu Leu Leu Arg Arg Thr Glu Ser Val Ala Glu Lys Met Leu Thr Asn Trp Phe Thr Phe Leu Leu Tyr Lys Phe Leu Lys Glu Ser Ala Gly Glu Pro Leu Phe Met Leu Tyr Cys Ala Ile Lys His Gln Met Glu Lys Gly Pro Ile Asp Ala Ile Thr Gly Glu Ala Arg Tyr Ser Leu Ser Glu Asp Lys Leu Ile Arg His Leu Ile Asp Tyr Lys Thr Leu Thr Leu Asn Cys Val Asn Pro Glu Asn Glu Asn Ala Pro Glu Val Pro Val Lys Gly Leu Asp Cys Asp Thr Gly Thr Gln Ala Lys Glu Lys Leu Leu Asp Ala Ala Tyr Lys Gly Val Pro Tyr Ser Gln Arg Pro Lys Ala Ala Asp Met Asp Leu Glu Trp Arg Gln Gly Arg Met Ala Arg Ile Ile Leu Gln Asp Glu Asp Val Thr Thr Lys Ile Asp Asn Asp Trp Lys Arg Leu Asn Thr Leu Ala His Tyr 170 175 Gln Val Thr Asp Gly Ser Ser Val Ala Leu Val Pro Lys Gln Thr Ser Ala Tyr Asn Ile Ser Asn Ser Ser Thr Phe Thr Lys Ser Leu Ser Arg Tyr Glu Ser Met Leu Arg Thr Ala Ser Ser Pro Asp Ser Leu Arg Ser Arg Thr Pro Met Ile Thr Pro Asp Leu Glu Ser Gly Thr Lys Leu Trp His Leu Val Lys Asn His Asp His Leu Asp Gln Arg Glu Gly Asp Arg Gly Ser Lys Met Val Ser Glu Ile Tyr Leu Thr Arg Leu Leu Ala Thr Lys Gly Thr Leu Gln Lys Phe Val Asp Asp Leu Phe Glu Thr Ile Phe 

 Ser
 Thr
 Ala
 His
 Arg
 Gly
 Ser
 Ala
 Leu
 Pro
 Leu
 Ala
 Ile
 Lys
 Tyr
 Met

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<210> 2124 <211> 245 <212> PRT <213> Homo sapiens

<400> 2124 Lys Thr Ala Val Lys Lys Arg Asn Leu Asn Pro Val Phe Asn Glu Thr 1 10 Leu Arg Tyr Ser Val Pro Gln Ala Glu Leu Gln Gly Arg Val Leu Ser 25 Leu Ser Val Trp His Arg Glu Ser Leu Gly Arg Asn Ile Phe Leu Gly 35 40 Glu Val Glu Val Pro Leu Asp Thr Trp Asp Trp Gly Ser Glu Pro Thr 55 Trp Leu Pro Leu Gln Pro Arg Val Pro Pro Ser Pro Asp Asp Leu Pro 70 Ser Arg Gly Leu Leu Ala Leu Ser Leu Lys Tyr Val Pro Ala Gly Ser 90 Glu Gly Ala Gly Leu Pro Pro Ser Gly Glu Leu His Phe Trp Val Lys 100 105 Glu Ala Arg Asp Leu Leu Pro Leu Arg Ala Gly Ser Leu Asp Thr Tyr 115 120 125 Val Gln Cys Phe Val Leu Pro Asp Asp Ser Arg Ala Ser Arg Gln Arg 135 140 Thr Arg Val Val Arg Arg Ser Leu Ser Pro Val Phe Asn His Thr Met 150 155 Val Tyr Asp Gly Phe Gly Pro Ala Asp Leu Arg Gln Ala Cys Ala Glu 165 170 175 Leu Ser Leu Trp Asp His Gly Ala Leu Ala Asn Arg Gln Leu Gly Gly 180 185 Thr Arg Leu Ser Leu Gly Thr Gly Ser Ser Tyr Gly Leu Gln Val Pro 200 205 Trp Met Asp Ser Thr Pro Glu Glu Lys Gln Leu Trp Gln Ala Leu Leu 215 220 Glu Gln Pro Cys Glu Trp Val Asp Gly Leu Leu Pro Leu Arg Thr Asn 230 Leu Ala Pro Arg Thr

<210> 2125
<211> 131
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(129)
<223> Xaa = any amino acid or nothing

<400> 2125 Ala Arg Gly Ile Gly Ser Leu Gly Arg Asp His Ser Gly Ser Gly Gly 10 Gly Thr Gly Met Ala Gly Ala Trp Val Arg Lys Ala Ala Asp Tyr Val 25 20 Arg Ser Lys Asp Phe Arg Asp Tyr Leu Met Ser Thr His Phe Trp Gly 45 40 35 Pro Val Ala Asn Trp Gly Leu Pro Ile Ala Ala Ile Thr Asp Met Lys 60 55 Lys Ser Pro Glu Ile Ile Ser Arg Arg Met Thr Phe Ala Leu Xaa Cys 75 70 65 Tyr Ser Leu Thr Phe Val Arg Phe Ala His Tyr Val Gln Pro Trp Asn 90 Trp Leu Met Leu Gly Cys His Thr Ala Val Asp Phe Asp Gln Leu Ile 105 100 Ser Ser Met Pro Cys Ile Ser His Gly Met Thr Ala Ser Ala Ser Ala 120 Leu 129

<211> 276
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(275)
<223> Xaa = any amino acid or nothing

<210> 2126

<400> 2126 Phe Arg Gly Tyr Trp Gly Val Arg Glu Ala Phe Thr Asp Ala Ser Trp 10 Ser Gly Gly Leu Gly Pro Gly Lys Pro Gly Met Lys Ile Thr Arg Gln Lys His Ala Lys Lys His Leu Gly Phe Phe Arg Asn Asn Phe Gly Val 40 Arg Glu Pro Tyr Gln Ile Leu Leu Asp Gly Thr Phe Cys Gln Ala Ala 55 Leu Arg Gly Arg Ile Gln Leu Arg Glu Gln Leu Pro Arg Tyr Leu Met 75 70 Gly Glu Thr Gln Leu Cys Thr Thr Arg Cys Val Leu Lys Glu Leu Glu 85 90 Thr Leu Gly Lys Asp Leu Tyr Gly Ala Lys Leu Ile Ala Gln Lys Cys 105 110 100 Gln Val Arg Asn Cys Pro His Phe Lys Asn Ala Val Ser Gly Ser Glu 115 120 125 Cys Leu Leu Ser Met Val Glu Glu Gly Asn Pro His His Tyr Phe Val 135 140 Ala Thr Gln Asp Gln Asn Leu Ser Val Lys Val Lys Lys Lys Pro Gly 155 150 Val Pro Leu Met Phe Ile Ile Gln Asn Thr Met Val Leu Asp Lys Pro 175 170 165 Ser Pro Lys Thr Ile Ala Phe Val Lys Ala Val Glu Ser Gly Arg Leu 185 190 180 Ser Gln Cys Met Arg Lys Lys Val Ser Asn Ile Ser Lys Arg Asn Arg 205 195 200 Val Xaa Xaa Lys Thr Leu Asn Arg Gly Arg Arg Lys Lys Lys 215 220 Ile Ser Gly Pro Asn Pro Leu Ser Cys Leu Lys Lys Lys Lys Ala 235

 Pro Asp Thr Gln Ser Ser Ala Ser Glu Lys Lys Arg Lys Arg Lys Arg
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 Ile Arg Asn Arg Ser Asn Pro Lys Val Leu Ser Glu Lys Gln Asn Ala
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 265
 270

 Glu Gly Glu
 275

<210> 2127
<211> 123
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(122)
<223> Xaa = any amino acid or nothing

<400> 2127 Tyr Tyr Gln Ile Ser Ser Leu Pro Ser Ile Val Gly Asn Gly Ile Phe 10 Leu Trp Leu Leu Ile Cys Ile Phe Leu Ala Lys Gln Gly Gly Ser Arg 20 25 30 Leu Xaa Phe Gln Pro Phe Gly Arg Pro Arg Gly Gly Gly His Leu Arg 35 40 Ser Gly Val Leu Gly Gln Pro Gly Gln His Gly Glu Thr Pro Ser Phe 55 60 Phe Tyr Asn Ser Lys Ile Ser Pro Ala Leu Trp Gly Pro Pro Val Ile 75 Pro Ser Ala Leu Gly Gly Glu Ala Gly Lys Ser Leu Xaa Pro Arg Arg 85 90 Gln Arg Phe Gln Arg Gly Gly Ile Ala Pro Leu Pro Ser Arg Val Arg 100 105 Gly Arg Ala Lys Leu Phe Leu Lys Lys 115 120 122

<210> 2128
<211> 169
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(162)
<223> Xaa = any amino acid or nothing

<400> 2128 Ala Ser Phe Phe His His His Arg Gly Ala Phe Leu Leu Leu Leu Ala 10 Ile Pro Gly Ser Xaa Gly Gln Asp Gln Ser Leu Ile His Trp Ser Asn 20 25 Ala Val Ser Asn Ala Asp Leu Leu Asp Leu Lys Asn Xaa Leu Asp His 40 45 Leu Glu Glu Lys Met Pro Leu Glu Val Lys Val Val Pro Pro Gln Val 55 50 Leu Ser Glu Pro Asn Xaa Arg Ser Gly Gly Cys Phe Ser Ala Pro Ser 75 65 70 Phe Glu Val Pro Pro Trp Thr Gly Glu Val Lys Pro Ser Pro Gln Arg 90 Asp Gly Gly Ala Leu Gly Gln Gly Pro Leu Gly Ile Pro Ser Asp Ser 105·

| The Leu Ala Leu Leu Lys Lys Gln Thr Xaa Arg Ala Leu Leu Asn Trp | 115 | 120 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125 | 125

<210> 2129 <211> 130 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(129) <223> Xaa = any amino acid or nothing

<400> 2129 Ala Arg Ala Pro Ser Pro Ser Phe Ser Val Arg Asp Val Glu Leu Ser Asp Pro Ala Arg Glu Arg Gly Glu Met Pro Val Ala Val Gly Pro Tyr 20 25 Gly Gln Ser Gln Pro Ser Cys Phe Asp Arg Val Lys Met Gly Phe Val 40 45 35 Met Gly Cys Ala Val Gly Met Ala Ala Gly Ala Leu Phe Gly Thr Phe 60 55 50 Ser Cys Leu Ser Ser Ile Leu Val Ser Ser Ser Gly Ser Gly Met Arg 70 75 Gly Arg Glu Leu Met Gly Gly Ile Gly Lys Thr Met Met Gln Ser Gly 85 90 Gly Thr Phe Gly Thr Phe Met Ala Ile Gly Met Gly Ile Arg Cys Xaa 100 105 110 Pro Trp Leu Pro Thr Thr Ser Val Pro Ser His Gln Ser Gln Pro Met 115 120 Tyr 129

<210> 2130 <211> 326 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(322) <223> Xaa = any amino acid or nothing

<400> 2130 Arg Ile Met Arg Met Cys Asp Arg Gly Ile Gln Met Leu Ile Thr Thr 5 10 Val Gly Ala Phe Ala Ala Phe Ser Leu Met Thr Ile Ala Val Gly Thr 25 Asp Tyr Trp Leu Tyr Ser Arg Gly Val Cys Arg Thr Lys Ser Thr Ser 35 40 Asp Asn Glu Thr Ser Arg Lys Asn Glu Glu Val Met Thr His Ser Gly 55 60 Leu Trp Arg Thr Cys Cys Leu Glu Gly Ala Phe Arg Gly Val Cys Lys 70 75 65

Lys Ile Asp His Phe Pro Glu Asp Ala Asp Tyr Glu Gln Asp Thr Ala 90 85 Glu Tyr Leu Leu Arg Ala Val Arg Ala Ser Ser Val Phe Pro Ile Leu 105 100 110 Ser Val Thr Leu Leu Phe Phe Gly Gly Leu Cys Val Ala Ala Ser Glu 120 115 125 Phe His Arg Ser Arg His Asn Val Ile Leu Ser Ala Gly Ile Phe Phe 135 140 Val Ser Ala Gly Leu Ser Asn Ile Ile Gly Ile Ile Val Tyr Ile Ser 150 155 160 Ala Asn Ala Gly Arg Thr Pro Gly Gln Arg Asp Ser Lys Lys Ser Tyr 170 165 Ser Tyr Gly Trp Ser Phe Tyr Phe Ser Gly Ala Phe Ser Phe Ile Ile 180 185 Gly Arg Ile Ile Cys Xaa Gly Val Gly Leu Pro Trp His Ile Tyr Ile 200 205 Glu Lys His Gln Gln Leu Arg Ala Lys Ser His Ser Glu Phe Leu Lys 215 220 Lys Ser Thr Phe Ala Arg Leu Pro Pro Tyr Arg Tyr Arg Phe Arg Arg 230 235 Arg Ser Ser Ser Arg Ser Thr Glu Pro Arg Ser Arg Asp Leu Ser Pro 245 250 255 Ile Ser Lys Gly Phe His Thr Ile Pro Ser Thr Asp Ile Ser Met Phe 260 265 Thr Leu Ser Arg Asp Pro Ser Lys Ile Thr Met Gly Thr Leu Leu Asn 280 285 Ser Asp Arg Asp His Ala Phe Leu Gln Phe His Asn Ser Thr Pro Lys 300 295 Glu Phe Lys Glu Ser Leu His Asn Asn Pro Ala Asn Arg Arg Thr Thr 315 Pro Val 322

<210> 2131 <211> 173 <212> PRT <213> Homo sapiens

<400> 2131 Arg Ile Ile Lys Val Lys Asp Leu Lys Gln Thr Leu Ala Ile Lys Thr 10 Ala Tyr Pro Arg Cys Lys Cys Leu Val Glu Met Asp Gln Ile Phe His 20 Leu Gln Val Lys Gln Lys Gln Leu Ala Cys Leu Cys Thr Trp Gln Ala 40 Arg Asp Pro Asp Cys Pro Pro Ser Thr Lys Val Val Leu Leu Val Gly 55 60 Pro Gly Met Gly Cys Met Val Ala Leu Phe Gln Asp Ser Ile Ala Trp Ser Asn Lys Ser Met Pro Ser Ser Leu Ser Ala Ile Ser Gln Ser Pro 90 85 Cys Gln Val Gln Ala Pro Glu Gly Pro Ser Ser Phe His Leu Pro Thr 100 105 110 Leu Ser Phe Thr Thr Cys Leu Ser Trp Gln Gly Gly Asp Leu Glu Phe 120 125 Leu Gly Asp Leu Lys Gly Cys Ser Glu Leu Lys Asn Phe Gln Glu Leu 135 140 Ile Thr Gln Ser Ala Leu Val His Pro Lys Ala Asp Val Trp Trp Tyr 150 155 Cys Gly Arg Pro Leu Leu Gly Thr Leu Pro Ser Asn 170

<210> 2132 <211> 312 <212> PRT

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<213> Homo sapiens
    <221> misc_feature
    <222> (1)...(310)
    <223> Xaa = any amino acid or nothing
    <400> 2132
Trp Ile Ser Leu Pro Ser Ser Leu Leu Cys Arg Lys Asn Gly Ser Ser
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Ala Glu Asp Asp Arg Arg Gly Glu Pro Ser Ala Glu Glu Ala Glu Gly
Glu Arg Glu Asp Trp Gly Ile Gly Ser Ala Xaa Ser Val Gly Ala Val 35 40 45
Ser Lys Val Pro Ser Ala Arg Phe Kaa Arg Thr Tyr Pro Ser Glu Asp 50 55 60
Glu Glu Glu Val Thr His Gln Lys Ser Ser Ser Ser Asp Ser Asn Ser
                   70
                                    75
Glu Glu His Arg Lys Lys Thr Ser Arg Ser Arg Asn Lys Lys Lys
               85
                                   90
Arg Lys Asn Lys Ser Ser Lys Arg Lys His Arg Lys Tyr Ser Asp Ser
        100 105 110
Asp Ser Asn Ser Glu Ser Asp Thr Asn Ser Asp Ser Asp Asp Lys
115 120 125
Lys Arg Val Lys Ala Lys Lys Lys Lys Lys Lys Lys His Lys Thr
130 135 140
Lys Lys Lys Lys Asn Lys Lys Thr Lys Lys Glu Ser Ser Asp Ser Ser
               150
                                     155
Cys Lys Asp Ser Glu Glu Asp Leu Ser Glu Ala Thr Trp Met Glu Gln
              165
                                 170
                                                      175
Pro Asn Val Ala Asp Thr Met Asp Leu Ile Gly Pro Glu Ala Pro Ile
        180 185 190
Ile His Thr Ser Gln Asp Glu Lys Pro Leu Lys Tyr Gly His Ala Leu
195 200 205
Leu Pro Gly Glu Gly Ala Ala Met Ala Glu Tyr Val Lys Ala Gly Lys 210 215 220 ,
Arg Ile Pro Arg Arg Gly Glu Ile Gly Leu Thr Ser Glu Glu Ile Gly 225 230 235 240
                 230
Ser Phe Glu Cys Ser Gly Tyr Val Met Ser Gly Ser Arg His Arg Arg
                                  250
              245
Met Glu Ala Val Arg Leu Arg Lys Glu Asn Gln Ile Tyr Ser Ala Asp
                             265
                                                270
          260
Glu Lys Arg Ala Leu Ala Ser Phe Asn Gln Glu Glu Arg Arg Lys Arg 275 280 285
Glu Ser Lys Ile Leu Ala Ser Phe Arg Glu Met Val His Lys Lys Thr
Lys Gly Lys Asp Asp Lys
305
                   310
    <210> 2133
    <211> 278
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(276)
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## <223> Xaa = any amino acid or nothing

<400> 2133 Trp Asp Asp Tyr Pro Gln Gly Ala Leu Arg Arg Arg Glu Ala Ala Glu 10 Gly Leu His Phe Leu Gly Pro Pro Gly Arg Val Arg Gly Gln Leu Arg 25 20 Gly Ile Thr Gly Pro Ala Trp Tyr Cys His Ser Pro Ser His Ser Leu Leu Ser Ala Phe Cys His Leu Pro Thr Pro Ser Arg Cys Pro Ala Met 55 Ala Arg Pro Pro Val Pro Gly Ser Val Val Val Pro Asn Trp His Glu 75 70 Ser Arg Arg Gly Gln Gly Val Pro Gly Leu His Ser Ala Gln Glu Pro 90 Pro Ala Gly Val Trp Ala Ala Xaa Ala Ala Ser Ala Ala Ala Ala Leu 100 105 110 Ser Ile Asp Thr Ala Ser Tyr Lys Ile Phe Val Ser Gly Lys Ser Gly 125 115 120 Val Gly Lys Thr Ala Leu Val Ala Lys Leu Ala Gly Leu Glu Val Pro 135 140 Val Val His His Glu Thr Thr Gly Ile Gln Thr Thr Val Val Phe Trp 150 155 Pro Ala Lys Leu Gln Ala Ser Ser Arg Val Val Met Phe Arg Phe Glu 175 165 170 Phe Trp Asp Cys Gly Glu Ser Ala Leu Lys Lys Phe Asp His Met Leu 185 190 Leu Ala Cys Met Glu Asn Thr Asp Ala Phe Leu Phe Leu Phe Ser Phe 195 200 205 195 200 Thr Asp Arg Ala Ser Phe Glu Asp Leu Pro Gly Gln Leu Ala Arg Ile 215 220 Ala Gly Glu Ala Pro Gly Val Val Arg Met Val Ile Gly Ser Lys Phe . 230 235 Asp Gln Tyr Met His Thr Asp Val Pro Glu Arg Asp Leu Thr Ala Phe 245 250 Arg Gln Ala Trp Glu Leu Pro Leu Leu Arg Val Lys Ser Val Pro Gly 260 Arg Arg Leu Gly 275 276

<210> 2134

<211> 511

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (510)

<223> Xaa = any amino acid or nothing

<400> 2134

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Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro Gly Glu Asp Gly Ala Gln
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        100
Gly Glu Pro Ala Glu Pro Glu Asp Ala Glu Lys Ser Arg Thr Tyr Val
             120
                                    125
     115
Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro Val Val Asn Gly Glu Lys
           135 140
Glu Pro Ser Lys Gly Asp Pro Asn Thr Glu Glu Ile Arg Gln Ser Asp
            150 155
Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln Glu Lys Lys Lys Ala
           165 170
Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met Gln Thr Leu Asn Thr
               185
                                190
        180
Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu Cys Lys Lys Tyr Ala
                     200
                                    205
Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys Gln Met Lys Leu Leu
 210 215
                           220
Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys Asp His Leu Arg Gly
     230 235
225
Glu His Ser Lys Ala Val Leu Ala Arg Ser Lys Leu Glu Ser Leu Cys
           245 250 255
Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys Glu Glu Gly Val Gln
                        265 270
        260
Arg Ala Arg Glu Glu Glu Lys Arg Lys Glu Val Thr Ser His Phe
                    280
                              285
     275
Gln Val Thr Leu Asn Asp Ile Gln Leu Gln Met Glu Gln His Asn Glu
 290 295 300
Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu Leu Ala Glu Arg Leu
305 310 315
Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu Glu His Ile Asp Lys
           325 330
Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu Val Asp Ala Lys Leu
                               350
        340
                        345
Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu Glu Arg His Gln Arg
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                              365
Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu Ser Gln Arg Met Cys 370 375 380
Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys Gln Gln Leu Ala Leu
     390 395
Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr Leu Ser Lys Ser Ser
            405 410
Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu Lys Met Thr Lys Lys
        420
                        425
                               430
Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr Arg Ser Arg Trp Glu
                     440
                                     445
Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu Glu Lys Thr Val Arg
                  455
                                 460
Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile Gln Arg Leu Glu Lys
      470
                              475
Leu Cys Arg Ala Leu Gln Thr Gly Ala Gln Xaa Pro Val Arg Gly Gln
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Arg Trp Gly Ser His Arg Thr Ser Ala Val Arg Ile Phe Ser
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<210> 2135
<211> 205
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(201)
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## <223> Xaa = any amino acid or nothing

<400> 2135 Ser Pro Gln Gly Pro Leu Leu Arg Ser Val Ser Pro Val Ser Ala Gly 10 Ala Ser Ser Val Thr Pro Gly Gly Ala Gln Pro Gly Val Thr Thr 20 Pro Pro Ser Leu Val Ala Val Ala Pro Ala Pro Gly Ser Ala Ala Gly 40 Pro Ala Ala Gly Trp Gln Xaa His Ala Gly Cys Arg Trp Thr Lys Leu 55 60 Pro Trp Ser Trp Gly Met Arg Pro Met Lys Ile Phe Phe Ser Glu Glu 70 Tyr Arg Ser Ile Ser Thr Arg Ile Ser His Asp Ala Leu Xaa Glu Lys 90 85 Cys Thr Gln Pro Ala Lys Pro Leu Ser Met Ile Arg Thr Gly Ser Ser 100 105 . 110 Val Ser Pro Gly Pro Leu Val Lys Trp Asn Trp Thr Arg Arg Glu Phe 115 120 125 Arg Asn Ser Gly Thr Arg Val Val Ser Ser Cys Cys Gly Met Ser Cys 135 140 Met Tyr Ser Phe Leu Gly His Cys Ser Val Ser Gln Asp Leu Pro Leu 155 150 Val His Val Asp Val Gly Trp Gln Pro Pro Leu Gly Pro Thr Val Gly 170 165 Leu Arg Pro Gly Leu Leu Pro Leu His Asp Thr Thr Pro Cys Gln Lys 180 185 Leu Val Val Asp Asp Leu Asp Trp Ala 195 200 201

<210> 2136 <211> 141 <212> PRT <213> Homo sapiens

<221> misc_feature
<222> (1)...(140)
<223> Xaa = any amino acid or nothing

<400> 21:36 Arg Trp Leu Pro Val Ala Glu Cys Asp Ser Ser Cys Val Gly Cys Thr 10 Gly Glu Gly Pro Gly Asn Cys Lys Glu Cys Ile Ser Gly Tyr Ala Arg 20 25 Glu His Gly Gln Cys Ala Asp Val Asp Glu Cys Ser Leu Ala Glu Lys 40 Thr Cys Val Arg Lys Asn Glu Asn Cys Tyr Asn Thr Pro Gly Ser Tyr 55 Val Cys Val Cys Pro Asp Gly Phe Glu Glu Thr Arg Arg Cys Leu Cys 70 Ala Ala Gly Arg Gly Xaa Ser His Arg Arg Arg Lys Pro Asp Thr Ala 85 90 Ala Leu Pro Arg Arg Pro Val Met Cys Arg Thr Tyr Pro Leu Asn Tyr 105 Ser Glu Gly Cys Pro Val Glu Asn Val Ala Leu Arg Met Pro Ser Pro 120 115 Ala Val Asp Ser Gly Gly Glu Arg Leu Pro Ala Leu 135

<210> 2137 <211> 494 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(489) <223> Xaa = any amino acid or nothing

<400> 2137 Asp Tyr Val Leu Thr Ala Glu Leu His Arg Gln Arg Ser Pro Gly Val 10 Ser Phe Gly Leu Ser Val Phe Asn Leu Met Asn Ala Ile Met Gly Ser 25 Gly Ile Leu Gly Leu Ala Tyr Val Met Ala Asn Thr Gly Val Phe Gly Phe Ser Phe Leu Leu Leu Thr Val Ala Leu Leu Ala Ser Tyr Ser Val 50 55 · His Leu Leu Leu Ser Met Cys Ile Gln Thr Ala Tyr Leu Gly Pro Xaa 65 70 75 Thr Asn Tyr Phe Met Val Leu Pro Ala His Xaa Leu Thr Cys Leu Pro 90 85 Leu Ile Glu Phe Leu Gln Ser Leu Xaa Asn Ser Leu Xaa Ala Val Thr 105 110 Ser Tyr Glu Asp Leu Gly Leu Phe Ala Phe Gly Leu Pro Gly Lys Leu 125 120 115 Val Val Ala Gly Thr Ile Ile Ile Gln Asn Ile Gly Ala Met Ser Ser 135 . 140 Tyr Leu Leu Ile Ile Lys Thr Glu Leu Pro Ala Ala Ile Ala Glu Phe 145 150 155 Leu Thr Gly Asp Tyr Ser Arg Tyr Trp Tyr Leu Asp Gly Gln Thr Leu 170 175 165 Leu Ile Ile Cys Val Gly Ile Val Phe Pro Leu Ala Leu Leu Pro 185 190 180 Lys Ile Gly Phe Leu Gly Tyr Thr Ser Ser Leu Ser Phe Phe Phe Met 205 200 Met Phe Phe Ala Leu Val Val Ile Ile Lys Lys Trp Ser Ile Pro Cys 210 . 215 220 210 · 215 Pro Leu Thr Leu Asn Tyr Val Glu Lys Gly Phe Gln Ile Ser Asn Val 225 230 235 Thr Asp Asp Cys Lys Pro Lys Leu Phe His Phe Ser Lys Glu Ser Ala 245 250 255 Tyr Ala Leu Pro Thr Met Ala Phe Ser Phe Leu Cys His Thr Ser Ile 265 270 260 Leu Pro Ile Tyr Cys Glu Leu Gln Ser Pro Ser Lys Lys Arg Met Gln 275 280 285 280 285 Asn Val Thr Asn Thr Ala Ile Ala Leu Ser Phe Leu Ile Tyr Phe Ile 290 295 300 Ser Ala Leu Phe Gly Tyr Leu Thr Phe Tyr Asp Gly Thr Thr Lys Ala 310 315 Gln Arg Gly Glu Val Thr Cys His Arg Ile Lys Asp Lys Val Glu Ser 330 335 325 Glu Leu Leu Lys Gly Xaa Xaa Xaa Ile Pro Xaa Ser His Asp Val Val 345 350 340 Val Met Thr Val Lys Leu Cys Ile Leu Phe Ala Val Leu Leu Thr Val 360 365 355 Pro Leu Ile His Phe Pro Ala Arg Lys Ala Val Thr Met Met Phe Phe 380 370 375 Ser Asn Phe Pro Phe Ser Trp Ile Arg His Phe Leu Ile Thr Leu Ala 390 395 400 Leu Asn Ile Ile Ile Val Leu Leu Ala Ile Tyr Val Pro Asp Ile Arg 410

<210> 2138
<211> 2215
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(2204)
<223> Xaa = any amino acid or nothing

<400> 2138 Pro Arg Ser Leu Cys Phe Ser Leu Trp Ala Glu Ala Ala Val Leu Ala 10 . Asp Gly Gly Leu Arg Arg Arg Arg Leu Leu Arg Gly Thr Met Ser 20 Ala Ser Phe Val Pro Asn Gly Ala Ser Leu Glu Asp Cys His Cys Asn 40 35 Leu Phe Cys Leu Ala Asp Leu Thr Gly Ile Lys Trp Lys Lys Tyr Val 60 . 55 Trp Gln Gly Pro Thr Ser Ala Pro Ile Leu Phe Pro Val Thr Glu Glu 75 Asp Pro Ile Leu Ser Ser Phe Ser Arg Cys Leu Lys Ala Asp Val Leu 85 Gly Val Trp Arg Arg Asp Gln Arg Pro Glu Arg Arg Glu Leu Xaa Ile 105 100 Phe Trp Gly Gly Glu Asp Pro Val Leu Leu Thr Leu Phe Thr Met Thr 1.25 120 Tyr Gln Lys Lys Met Glu Cys Gly Arg Met Asp Phe Pro Met Asn 140 130 135 Ala Val Leu Cys Phe Ser Lys Ala Val His Asn Leu Leu Glu Arg Cys **155** . 150 Leu Met Asn Arg Asn Phe Val Arg Ile Gly Lys Trp Phe Val Lys Pro 175 170 165 Tyr Glu Lys Asp Glu Lys Pro Ile Asn Lys Ser Glu His Leu Ser Cys 185 . 190 180 Ser Phe Thr Phe Phe Leu His Gly Asp Ser Asn Val Cys Thr Ser Val 200 Glu Ile Asn Gln His Gln Pro Val Tyr Leu Leu Ser Glu Glu His Ile 220 215 Thr Leu Ala Gln Gln Ser Asn Ser Pro Phe Gln Val Ile Leu Cys Pro 230 235 Phe Gly Leu Asn Gly Thr Leu Thr Gly Gln Ala Phe Lys Met Ser Asp 245 250 Ser Ala Thr Lys Lys Leu Ile Gly Glu Trp Lys Gln Phe Tyr Pro Ile 265 260 Ser Cys Cys Leu Lys Glu Met Ser Glu Glu Lys Gln Glu Asp Met Asp 275 280 285 280 Trp Glu Asp Asp Ser Leu Ala Ala Val Glu Val Leu Val Ala Gly Val 295 . 300 Arg Met Ile Tyr Pro Ala Cys Phe Val Leu Val Pro Gln Ser Asp Ile 315

Pro	Thr	Pro	Ser	Pro 325	Val	Gly	Ser	Thr	His 330	Cys	Ser	Ser	Ser	Сув 335	Leu
Gly	Val	His	Gln 340		Pro	Ala	şer	Thr 345	Arg	Asp	Pro	Ala	Met 350	Ser	Ser
Val	Thr	Leu 355		Pro	Pro	Thr	Ser 360		Glu	Glu	Val	Gln 365		Val	Asp
Pro	Gln 370		Val	Gln	Lys	Trp 375		Lys	Phe	ser	Ser 380		Ser	Asp	Gly
Phe 385	Asn	Ser	Asp	Ser	Thr 390		His	His	Gly	Gly 395		Ile	Pro	Arg	Lys 400
	Ala	Asn	His	Val		qaA	Arg	Val	Trp 410		Glu	Cys	Asn	Met 415	
Arg	Ala	Gln	Asn 420		Arg	Lys	Tyr	Ser 425		Ser	Ser	Gly	Gly 430		Cys
Glu	Glu	Ala 435		Ala	Ala	Lys	Val 440		Ser	Trp	Asp	Phe 445		Glu	Ala
Thr	Gln 450		Thr	Asn	Cys	Ser 455		Leu	Arg	His	Lys 460		Leu	Lys	Ser
Arg 465	Asn	Ala	Gly	Gln	Gln 470		Gln	Ala	Pro	Ser 475		Gly	Gln	Gln	Gln 480
	Ile	Leu	Pro	Lys 485		ГÀв	Thr	Asn	Glu 490		Gln	Glu	Lys	Ser 495	
Lys	Pro	Gln	Lys 500		Pro	Leu	Thr	Pro 505		His	His	Arg	Val 510		Val
Ser	Asp	Asp 515		Gly	Met	Asp	Ala 520		Ser	Ala	Ser	Gln 525		Leu	Val
Ile	Ser 530		Pro	Asp	Ser	Gln 535		Arg	Phe	Ser	Asn 540		Arg	Thr	Asn
Asp 545	Val	Ala	Lys	Thr	Pro 550		Met	His	GJĀ	Thr 555		Met	Ala	Asn	Ser 560
	Gln	Pro	Pro	Pro 565		Ser	Pro	His	Pro 570		Asp	Val	Val	Asp 575	
Gly	Val	Thr	<b>Lys</b> 580		Pro	Ser	Thr	Pro 585		Ser	Gln	His	Phe 590	Tyr	Gln
Met	Pro	Thr 595	Pro	Asp	Pro	Leu	Val 600	Pro	Ser	Lys	Pro	Met 605	Glu	Asp	Arg
Ile	Asp 610	Ser	Leu	Ser	Gln	Ser 615		Pro	Pro	Gln'	Tyr 620	Gln	Glu	Ala	Val
Glu 625	Pro	Thr	Val	Tyr	Val 630	Gly	Thr	Ala	Val	Asn 635	Leu	Glu	Glu	Asp	Glu 640
Ala	Asn	Ile	Ala	Trp 645	Lys	Tyr	Tyr	Lys	Phe 650	Pro	Lys	Lys	Lys	Asp 655	Val
Glu	Phe	Leu	Pro 660	Pro	Gln	Leu	Pro	Ser 665	Asp	Lys	Phe	Lys	Asp 670	Asp	Pro
	Gly	675					680					685			
Val	Gln 690	Сув	Lys	Lys	Pro	Leu 695	Lys	Val	Ser	Asp	<b>Glu</b> 700	Leu	Val	Gln	Gln
Tyr 705	Gln	Ile	Lys	Asn	Gln 710	Сув	Leu	Ser	Ala	Ile 715	Ala	Ser	Asp	Ala	Glu 720
Gln	Glu	Pro	Lys	Ile 725	Asp	Pro	Tyr	Ala	Phe 730	Val	Glu	Gly	Asp	Glu 735	Glu
Phe	Leu	Phe	Pro 740	Asp	Lys	Lys	Asp	Arg 745	Gln	Asn	Ser	Glu	Arg 750	Glu	Ala
Gly	Lys	Lys 755	His	Lys	Val	Glu	Asp 760	Gly	Thr	Ser	Ser	Val 765	Thr	Val	Leu
Ser	His 770	Glu	Glu	Asp	Ala	Met 775	Ser	Leu	Phe	Ser	Pro 780	Ser	Ile	Lys	Gln
Asp 785	Ala	Pro	Arg	Pro	Thr 790	Ser	His	Ala	Arg	Pro 795	Pro	Ser	Thr	Ser	800
Ile	Tyr	Asp	Ser	Asp 805	Leu	Ala	Val	Ser	Tyr 810	Thr	Asp	Leu	Asp	Asn 815	Leu
Phe	Asn	Ser	Asp 820	Glu	Asp	Glu	Гел	Thr 825	Pro	Gly	Ser	Lys	Arg 830	Ser	Ala

Asn Gly Ser Asp Asp Lys Ala Ser Cys Lys Glu Ser Lys Thr Gly Asn 835 840 845 Leu Asp Pro Leu Ser Cys Ile Ser Thr Ala Asp Leu His Lys Met Tyr 850 855 860 Pro Thr Pro Pro Ser Leu Glu Gln His Ile Met Gly Phe Ser Pro Met 875 870 Asn Met Asn Asn Lys Glu Tyr Gly Ser Met Asp Thr Thr Pro Gly Gly 885 890 Thr Val Leu Glu Gly Asn Ser Ser Ser Ile Gly Ala Gln Phe Lys Ile 900 905 Glu Val Asp Glu Gly Phe Cys Ser Pro Lys Pro Ser Glu Ile Lys Asp 920 Phe Ser Tyr Val Tyr Lys Pro Glu Asn Cys Gln Ile Leu Val Gly Cys 935 940 Ser Met Phe Ala Pro Leu Lys Thr Leu Pro Ser Gln Tyr Leu Pro Leu 950 955 Ile Lys Leu Pro Glu Glu Cys Ile Tyr Arg Gln Ser Trp Thr Val Gly 965 970 Lys Leu Glu Leu Leu Ser Ser Gly Pro Ser Met Pro Phe Ile Lys Glu 980 985 990 Gly Asp Gly Ser Asn Met Asp Gln Glu Tyr Gly Thr Ala Tyr Thr Pro 1000 1005 995 Gln Thr His Thr Ser Cys Gly Met Pro Pro Ser Ser Ala Pro Pro Ser 1015 1020 Asn Ser Gly Ala Gly Ile Leu Pro Ser Pro Ser Thr Pro Arg Phe Pro 1025 1030 1035 Thr Pro Arg Thr Pro Arg Thr Pro Arg Thr Pro Arg Gly Ala Gly Gly 1050 1055 1045 Pro Ala Ser Ala Gln Gly Ser Val Lys Tyr Glu Asn Ser Asp Leu Tyr 1060 1065 1070 Ser Pro Ala Ser Thr Pro Ser Thr Cys Arg Pro Leu Asn Ser Val Glu 1075 1080 1085 Pro Ala Thr Val Pro Ser Ile Pro Glu Ala His Ser Leu Tyr Val Asn 1090 1095 1100 Leu Ile Leu Ser Glu Ser Val Met Asn Leu Phe Lys Asp Cys Asn Ser 1110 1115 . 1120 Asp Ser Cys Cys Ile Cys Val Cys Asn Met Asn Ile Lys Gly Ala Asp 1125 1130 1135 Val Gly Val Tyr Ile Pro Asp Pro Thr Gln Glu Ala Gln Tyr Arg Cys 1140 1145 1150 Thr Cys Gly Phe Ser Ala Val Met Asn Arg Lys Phe Gly Asn Asn Ser 1155 1160 1165 Gly Leu Phe Phe Glu Asp Glu Leu Asp Ile Ile Gly Arg Asn Thr Asp 1170 1180 Cys Gly Lys Glu Ala Glu Lys Arg Phe Glu Ala Leu Arg Ala Thr Ser 1190 1195 Ala Glu Ris Val Asn Gly Gly Leu Lys Glu Ser Glu Lys Leu Ser Asp 1205 1210 1215 Asp Leu Ile Leu Leu Gln Asp Gln Cys Thr Asn Leu Phe Ser Pro 1220 1225 1230 Phe Gly Ala Ala Asp Gln Asp Pro Phe Pro Lys Ser Gly Val Ile Ser 1235 1240 1245 Asn Trp Val Arg Val Glu Glu Arg Asp Cys Cys Asn Asp Cys Tyr Leu 1255 1260 Ala Leu Glu His Gly Arg Gln Phe Met Asp Asn Met Ser Gly Gly Lys 1270 1275 Val Asp Glu Ala Leu Val Lys Ser Ser Cys Leu His Pro Trp Ser Lys 1285 1290 1295 Arg Asn Asp Val Ser Met Gln Cys Ser Gln Asp Ile Leu Arg Met Leu 1300 1305 1310 Leu Ser Leu Gln Pro Val Leu Gln Asp Ala Ile Gln Lys Lys Arg Thr 1320 1325 1315 Val Arg Pro Trp Gly Val Gln Gly Pro Leu Thr Trp Gln Gln Phe His 1335 1340 1330

Lys Met Ala Gly Arg Gly Ser Tyr Gly Thr Asp Glu Ser Pro Glu Pro 1345 1350 1355 Leu Pro Ile Pro Thr Phe Leu Leu Gly Tyr Asp Tyr Asp Tyr Leu Val 1365 1370 1375 Leu Ser Pro Phe Ala Leu Pro Tyr Trp Glu Arg Leu Met Leu Glu Pro . 1390 1380 1385 Tyr Gly Ser Gln Arg Asp Ile Ala Tyr Val Val Leu Cys Pro Glu Asn 1400 1405 1395 Glu Ala Leu Leu Asn Gly Ala Lys Ser Phe Phe Arg Asp Leu Thr Ala 1410 1415 1420 Ile Tyr Glu Ser Cys Arg Leu Gly Gln His Arg Pro Val Ser Arg Leu 1425 1430 1435 1440 Leu Thr Asp Gly Ile Met Arg Val Gly Ser Thr Ala Ser Lys Lys Leu 1445 1450 1455 Ser Glu Lys Leu Val Ala Glu Trp Phe Ser Gln Ala Ala Asp Gly Asn 1460 1465 1470 Asn Glu Ala Phe Ser Lys Leu Lys Leu Tyr Ala Gln Val Cys Arg Tyr 1475 1480 1485 Asp Leu Gly Pro Tyr Leu Ala Ser Leu Pro Leu Asp Ser Ser Leu Leu 1490 1495 1500 Ser Gln Pro Asn Leu Val Ala Pro Thr Ser Gln Ser Leu Ile Thr Pro 1510 1515 Pro Gln Met Thr Asn Thr Gly Asn Ala Asn Thr Pro Ser Ala Thr Leu 1525 1530 1535 Ala Ser Ala Ala Ser Ser Thr Met Thr Val Thr Ser Gly Val Ala Ile 1550 1540 1545 Ser Thr Ser Val Ala Thr Ala Asn Ser Thr Leu Thr Thr Ala Ser Thr 1555 1560 1565 Ser Ser Ser Ser Ser Ser Asn Leu Asn Ser Gly Val Ser Ser Asn Lys 1570 1575 1580 Leu Pro Ser Phe Pro Pro Phe Gly Ser Met Asn Ser Asn Ala Ala Gly 1590 1595 Ser Met Ser Thr Gln Ala Asn Thr Val Gln Ser Gly Gln Leu Gly Gly 1610 1615 1605 Gln Gln Thr Ser Ala Leu Gln Thr Ala Gly Ile Ser Gly Glu Ser Ser 1630 1620 1625 Ser Leu Pro Thr Gln Pro His Pro Asp Val Ser Glu Ser Thr Met Asp 1635 1640 1645 Arg Asp Lys Val Gly Ile Pro Thr Asp Gly Asp Ser His Ala Val Thr 1650 1655 1660 Tyr Pro Pro Ala Ile Val Val Tyr Ile Ile Asp Pro Phe Thr Tyr Glu 1670 1675 1665 Asn Thr Asp Glu Ser Thr Asn Ser Ser Ser Val Trp Thr Leu Gly Leu 1690 1695 1685 Leu Arg Cys Phe Leu Glu Met Val Gln Thr Leu Pro Pro His Ile Lys 1705 1710 1700 Ser Thr Val Ser Val Gln Ile Ile Pro Cys Gln Tyr Leu Leu Gln Pro 1715 1720 1725 Val Lys His Glu Asp Arg Glu Ile Tyr Pro Gln His Leu Lys Ser Leu 1735 1740 Ala Phe Ser Ala Phe Thr Gln Cys Arg Arg Pro Leu Pro Thr Ser Thr 1755 1750 1755 1760 Asn Val Lys Thr Leu Thr Gly Phe Gly Pro Gly Leu Ala Met Glu Thr 1770 1775 1765 Ala Leu Arg Ser Pro Asp Arg Pro Glu Cys Ile Arg Leu Tyr Ala Pro 1780 1785 1790 Pro Phe Ile Leu Ala Pro Val Lys Asp Lys Gln Thr Glu Leu Gly Glu 1805 1795 1800 Thr Phe Gly Glu Ala Gly Gln Lys Tyr Asn Val Leu Phe Val Gly Tyr 1815 1820 Cys Leu Ser His Asp Gln Arg Trp Ile Leu Ala Ser Cys Thr Asp Leu 1825 1830 1835 1840 Tyr Gly Glu Leu Leu Glu Thr Cys Ile Ile Asn Ile Asp Val Pro Asn 1850 1845

Arg Ala Arg Arg Lys Lys Ser Ser Ala Arg Lys Phe Gly Leu Gln Lys 1860 1865 Leu Trp Glu Trp Cys Leu Gly Leu Val Gln Met Ser Ser Leu Pro Trp 1875 1880 1885 Arg Val Val Ile Gly Arg Leu Gly Arg Ile Gly His Gly Glu Leu Lys 1895 1900 Asp Trp Ser Cys Leu Leu Ser Arg Arg Asn Leu Gln Ser Leu Ser Lys 1905 1910 1915 1920 Arg Leu Lys Asp Met Cys Arg Met Cys Gly Ile Ser Ala Ala Asp Ser 1925 1930 1935 Pro Ser Ile Leu Ser Ala Cys Leu Val Ala Met Glu Pro Gln Gly Ser 1940 1945 1950 Phe Val Ile Met Pro Asp Ser Val Ser Thr Gly Ser Val Phe Gly Arg 1955 1960 1965 Ser Thr Thr Leu Asn Met Gln Thr Ser Gln Leu Asn Thr Pro Gln Asp 1975 1980 Thr Ser Cys Thr His Ile Leu Val Phe Pro Thr Ser Ala Ser Val Gln 1990 1995 Val Ala Ser Ala Thr Tyr Thr Thr Glu Asn Leu Asp Leu Ala Phe Asn 2005 2010 2015 Pro Asn Asn Asp Gly Ala Asp Gly Met Gly Ile Phe Asp Leu Leu Asp 2020 2025 2030 Thr Gly Asp Asp Leu Asp Pro Asp Ile Ile Asn Ile Leu Pro Ala Ser 2035 2040 2045 Pro Thr Gly Ser Pro Val His Ser Pro Gly Ser His Tyr Pro His Gly 2050 2055 2060 Gly Asp Ala Gly Lys Gly Gln Ser Thr Asp Arg Leu Leu Ser Thr Glu 2065 2070 2075 Pro His Glu Glu Val Pro Asn Ile Leu Gln Gln Pro Leu Ala Leu Gly 2085 2090 2095 Tyr Phe Val Ser Thr Ala Lys Ala Gly Pro Leu Pro Asp Trp Phe Trp 2100 2105 2110 Ser Ala Cys Pro Gln Ala Gln Tyr Gln Cys Pro Leu Phe Leu Lys Ala 2115 2120 2125 Ser Leu His Leu His Val Pro Ser Val Gln Ser Asp Glu Leu Leu His 2130 2135 2140 Ser Lys His Ser His Pro Leu Asp Ser Asn Gln Thr Ser Asp Val Leu 2145 2150 2155 Arg Phe Val Leu Glu Gln Tyr Asn Ala Leu Ser Trp Leu Thr Cys Asp 2165 2170 2175 Pro Ala Thr Gln Asp Arg Arg Ser Cys Leu Pro Ile His Phe Val Val 2180 2185 Leu Asn Gln Leu Tyr Asn Phe Ile Met Asn Met Leu 2200

<210> 2139

<211> 668

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (666)

<223> Xaa = any amino acid or nothing

<400> 2139

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Leu Thr Asn Asn Val Pro Phe Leu Leu Ala Ser Ala Leu Xaa Ser Ser 565 570 Val Leu Val Val Leu Val Leu Ser Pro Gly Leu Leu His Gly Pro Leu 580 585 Ala Leu Arg Asn Ile Thr Asp Thr Gly Phe Lys Leu Leu Leu Val Gly 600 Leu Val Thr Leu Asn Phe Val Gly Gly Leu His Ala Gly Glu Arg Ala 615 . 620 Arg Pro Val Pro Pro Arg Leu Pro Ala Pro Pro Pro Ala Gln Ala Gly 630 635 Ser Lys Lys Arg Phe Lys Gln Leu Glu Arg Glu Leu Ala Glu Gln Pro 645 650 Trp Pro Pro Leu Pro Ala Gly Pro Leu Arg

<210> 2140 <211> 330 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(327)

<223> Xaa = any amino acid or nothing

<400> 2140 Ser Ser Ala Gly Ser Ala Arg Lys Leu Gln Val Met Ala Leu Ala Ala . 5 . 10 Arg Leu Trp Arg Leu Leu Pro Phe Arg Arg Gly Ala Ala Pro Gly Ser 20 -25 Arg Leu Pro Ala Gly Thr Ser Gly Ser Arg Gly His Cys Gly Pro Cys 40 Arg Phe Arg Gly Phe Glu Val Met Gly Asn Pro Gly Thr Phe Lys Arg 55 60 Gly Leu Leu Ser Ala Leu Ser Tyr Leu Gly Phe Glu Thr Tyr Gln 70 75 Val Ile Ser Gln Ala Ala Val Val His Ala Thr Ala Lys Val Glu Glu 85 90 Ile Leu Glu Gln Ala Asp Tyr Leu Tyr Glu Ser Gly Glu Thr Glu Lys 105 Leu Tyr Gln Leu Leu Thr Gln Tyr Lys Glu Ser Glu Asp Ala Glu Leu 115 120 125 Leu Trp Arg Leu Ala Arg Ala Ser Arg Asp Val Ala Gln Leu Ser Arg 135 140 Thr Ser Glu Glu Glu Lys Lys Leu Leu Val Tyr Glu Ala Leu Glu Tyr 155 Ala Lys Arg Ala Leu Glu Lys Asn Glu Ser Ser Phe Ala Ser His Lys 170 165 Trp Tyr Ala Ile Cys Leu Ser Asp Val Gly Asp Tyr Glu Gly Ile Lys 185 Ala Lys Ile Ala Asn Ala Tyr Ile Ile Lys Glu His Phe Glu Lys Ala 200 Ile Glu Leu Asn Pro Lys Asp Ala Thr Ser Ile His Leu Met Gly Ile 215 220 Trp Cys Tyr Thr Phe Ala Glu Met Pro Trp Tyr Gln Arg Arg Ile Ala 230 235 Xaa Asn Ala Cys Leu Gln Leu Pro Pro Xaa Phe Pro Pro Tyr Glu Lys 250 Ala Leu Gly Tyr Phe His Arg Ala Glu Gln Val Asp Pro Asn Phe Tyr 260 270 265 Ser Lys Asn Leu Leu Leu Gly Lys Thr Tyr Leu Lys Leu His Asn 280

<210> 2141
<211> 490
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(484)
<223> Xaa = any amino acid or nothing

<400> 2141 Ile Ala Leu Leu Ile Val Asp Gly Leu Ala Trp Asp Asp Gln Gly Gly 10 Leu Ala Leu Leu His Ile Ser Pro Ser Lys Leu Ile Leu Xaa Gln Asp 25 20 Ser Ser Gly Met Ser Tyr Val Met Val Arg Cys Thr Ile Thr Arg Ala 40 45 35 Phe Phe Lys Ser Leu Leu Cys His Ile Cys Gln Tyr Ser Ile Gly Pro 55 Gln Xaa Val Thr Cys Pro Gly Gln Asp Ala Cys Lys Glu Xaa Lys Ser 75 70 Thr Ala Asn Xaa Gly Gly Xaa Arg Glu Xaa Xaa Pro Gln Val Leu Phe 90 85 Phe Ala Phe Leu Ser Asn Pro Ala Val Lys Phe Gly Arg Met Ser Lys 110 100 105 Lys Gln Arg Asp Ser Leu Tyr Ala Glu Val Gln Lys His Gln Gln Arg 115 120 125 Leu Gln Glu Gln Arg Gln Gln Gln Ser Gly Glu Ala Glu Ala Leu Ala 140 135 Arg Val Tyr Ser Ser Ser Ile Ser Asn Gly Leu Ser Asn Leu Asn Asn 155 150 Glu Thr Ser Gly Thr Tyr Ala Asn Gly Ser Val Ile Asp Leu Pro Lys 175 170 165 Ser Glu Gly Tyr Tyr Asn Val Val Ser Gly Gln Pro Ser Pro Asp Gln 185 190 180 Ser Gly Leu Asp Met Thr Gly Ile Lys Gln Ile Lys Gln Glu Pro Ile 195 200 205 Tyr Asp Leu Thr Ser Val Pro Asn Leu Phe Thr Tyr Ser Ser Phe Asn 215 220 Asn Gly Gln Leu Ala Pro Gly Ile Thr Met Thr Glu Ile Asp Arg Ile 235 230 Ala Gln Asn Ile Ile Lys Ser His Leu Glu Thr Cys Gln Tyr Thr Met 255 245 250 Glu Glu Leu His Gln Leu Ala Trp Gln Thr His Thr Tyr Glu Glu Ile 265 260 Lys Ala Tyr Gln Ser Lys Ser Arg Glu Ala Leu Trp Gln Gln Cys Ala 275 280 285 Ile Gln Ile Thr His Ala Ile Gln Tyr Val Val Glu Phe Ala Lys Arg 300 290 295 Ile Thr Gly Phe Met Glu Leu Cys Gln Asn Asp Gln Ile Leu Leu Leu 310 315 Lys Ser Gly Cys Leu Glu Val Val Leu Val Arg Met Cys Arg Ala Phe 330 Asn Pro Leu Asn Asn Thr Val Leu Phe Glu Gly Lys Tyr Gly Gly Met 350 345

Gln Met Phe Lys Ala Leu Gly Ser Asp Asp Leu Val Asn Glu Ala Phe 355 . 360 365 Asp Phe Ala Lys Asn Leu Cys Ser Leu Gln Leu Thr Glu Glu Glu Ile 375 380 Ala Leu Phe Ser Ser Ala Val Leu Ile Ser Pro Asp Arg Ala Trp Leu 390 395 Ile Glu Pro Arg Lys Val Gln Lys Leu Gln Glu Lys Ile Tyr Phe Ala 405 410 Leu Gln His Val Ile Gln Lys Asn His Leu Asp Asp Glu Thr Leu Ala 420 425 430 Lys Leu Ile Ala Lys Ile Pro Thr Ile Thr Ala Val Cys Asn Leu His 440 445 Gly Glu Lys Leu Gln Val Phe Lys Gln Ser His Pro Glu Ile Val Asn 455 460 Thr Leu Phe Pro Pro Leu Tyr Lys Glu Leu Phe Asn Pro Asp Cys Ala 465 470 475 Thr Ala Cys Lys 484

<210> 2142 <211> 231 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (230) <223> Xaa = any amino acid or nothing

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PCT/US01/03800 WO 01/57188

<210> 2143 <211> 1029 <212> PRT

<213> Homo sapiens <221> misc_feature <222> (1) ...(1011) <223> Xaa = any amino acid or nothing <400> 2143 Pro Arg Leu Lys Arg Leu Val Val Thr Glu Glu Asp Gly Gly Ala Arg Pro Glu Ala Leu Gly Lys Ile Ala Pro Arg Thr Pro Ala Glu Leu Gly 25 20 Ala Arg Ala Asp Gln Glu Leu Val Thr Ala Leu Met Cys Asp Leu Arg 45 40 Arg Pro Ala Ala Gly Gly Met Met Asp Leu Ala Tyr Val Cys Glu Trp 60 55 Glu Lys Trp Ser Lys Ser Thr His Cys Pro Ser Val Pro Leu Ala Cys 70 Ala Trp Ser Cys Arg Asn Leu Ile Ala Phe Thr Met Asp Leu Arg Ser 85 90 95 Asp Asp Gln Asp Leu Thr Arg Met Ile His Ile Leu Asp Thr Glu His
100 105 110 Pro Trp Asp Leu His Ser Ile Pro Ser Glu His His Glu Ala Ile Thr 125 115 120 Cys Leu Glu Trp Asp Gln Ser Gly Phe Pro Gly Phe Leu Phe Ser Arg 135 140 Trp Pro Thr Gly Gln Ile Lys Cys Trp Ser Met Gly Val Ser Thr Leu 155 150 Ala Asn Ser Trp Glu Ser Ser Val Gly Ser Leu Val Glu Gly Gly Pro 165 170 175 His Leu Trp Ala Leu Ser Trp Leu His Asn Gly Val Lys Leu Ala Leu 180 185 His Val Glu Lys Ser Gly Ala Ser Ser Phe Gly Glu Lys Phe Ser Arg 205 200 195 Val Lys Phe Ser Pro Ser Leu Thr Leu Phe Gly Gly Asn Ala Met Glu 220 215 Gly Trp Ile Ala Val Thr Val Ser Gly Leu Val Thr Val Ser Leu Leu 235 230 Gln Pro Ser Gly Gln Val Leu Thr Ser Thr Glu Ser Leu Cys Arg Leu 250 255 245 Arg Ala Arg Val Ala Leu Ala Asp Ile Ala Phe Thr Gly Gly Gly Asn 260 265 270 Ile Val Val Ala Thr Ala Asp Gly Ser Ser Ala Ser Pro Val Gln Phe

325 Met Ser Glu Gln Val Leu Leu Cys Ala Ser Ser Gln Thr Ser Ser Ile 340 345 350 Val Glu Cys Trp Ser Leu Arg Lys Glu Gly Leu Pro Val Asn Asn Ile 355 360 365 Phe Gln Gln Ile Ser Pro Val Val Gly Asp Lys Gln Pro Thr Ile Leu 370 375 380 Lys Trp Arg Ile Leu Ser Ala Thr Asn Asp Leu Asp Arg Val Ser Ala 390 395 Val Ala Leu Pro Lys Leu Pro Ile Ser Leu Thr Asn Thr Asp Leu Lys 410

Tyr Lys Val Cys Val Ser Val Val Ser Glu Lys Cys Arg Ile Asp Thr 295

Asp Ile Leu Pro Ser Leu Phe Met Arg Cys Thr Thr Asp Leu Asn Arg

Lys Asp Lys Phe Pro Ala Ile Thr His Leu Lys Phe Leu Ala Arg Asp

310

280 285

300

330 335

315

Val Ala Ser Asp Thr Gln Phe Tyr Pro Gly Leu Gly Leu Ala Leu Ala 420 . 425 Phe His Asp Gly Ser Val His Ile Val His Arg Leu Ser Leu Gln Thr Met Ala Val Phe Tyr Ser Ser Ala Ala Pro Arg Pro Val Asp Glu Pro Ala Met Lys Arg Pro Arg Thr Ala Gly Pro Ala Val His Leu Lys Ala Met Gln Leu Ser Trp Thr Ser Leu Ala Leu Val Gly Ile Asp Ser His Gly Lys Leu Ser Val Leu Arg Leu Ser Pro Ser Met Gly His Pro Leu Glu Val Gly Leu Ala Leu Arg His Leu Leu Phe Leu Leu Glu Tyr Cys Met Val Thr Gly Tyr Asp Trp Trp Asp Ile Leu Leu His Val Gln Pro Ser Met Val Gln Ser Leu Val Glu Lys Leu His Glu Glu Tyr Thr Arg Gln Thr Ala Ala Leu Gln Gln Val Leu Ser Thr Arg Ile Leu Ala Met Lys Ala Ser Leu Cys Lys Leu Ser Pro Cys Thr Val Thr Arg Val Cys Asp Tyr His Thr Lys Leu Phe Leu Ile Ala Ile Ser Ser Thr Leu Lys Ser Leu Leu Arg Pro His Phe Leu Asn Thr Pro Asp Lys Ser Pro Gly Asp Arg Leu Thr Glu Ile Cys Thr Lys Ile Thr Asp Val Asp Ile Asp Lys Val Met Ile Asn Leu Lys Thr Glu Glu Phe Val Leu Asp Met Asn Thr Leu Gln Ala Leu Gln Gln Leu Leu Gln Trp Val Gly Asp Phe Val Leu Tyr Leu Leu Ala Ser Leu Pro Asn Gln Pro Cys Pro Thr Ser Glu Pro Cys Pro Thr Ser Glu Pro Ser Pro Thr Ser Glu Pro Ser Pro Thr Ser Glu Pro Ser Ser Pro Xaa Ser Leu Cys Gly Ser Leu Leu Arg Pro Gly His Ser Phe Leu Arg Asp Gly Thr Ser Leu Gly Met Leu Arg Glu Leu Met Val Val Ile Arg Ile Trp Gly Leu Leu Lys Pro Ser Cys Leu Pro Val Tyr Thr Ala Thr Ser Asp Thr Gln Asp Ser Met Ser Leu Leu Phe Arg Leu Leu Thr Lys Leu Trp Ile Cys Cys Arg Asp Glu Gly Pro Ala Ser Glu Pro Asp Glu Ala Leu Val Asp Glu Cys Cys Leu Leu Pro Ser Gln Leu Leu Ile Pro Ser Leu Asp Trp Leu Pro Ala Ser Asp Gly Leu Val Ser Arg Leu Gln Pro Lys Gln Pro Leu Arg Leu Gln Phe Gly Arg Ala Pro Thr Leu Pro Gly Ser Ala Ala Thr Leu Gln Leu Asp Gly Leu Ala Arg Ala Pro Gly Gln Pro Lys Ile Asp His Leu Arg Arg Leu His Leu Gly Ala Cys Pro Thr Glu Glu Cys Lys Ala Cys Thr Arg Cys Gly Cys Val Thr Met Leu Lys Ser Pro Asn Arg Thr Thr Ala Val Lys Gln Trp Glu Gln Arg Trp Ile Lys Asn Cys Leu Val Arg Trp Ala Leu Val Ala Gly Ala Pro Gln Leu Pro Leu Ser Pro Ala Ala Pro Gln Leu 

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Leu Leu Ser Tyr Pro Ser Ala Ala Pro Glu Pro Gly Cys Cys Lys Ser
                                     940
                    935
His Arg Ser Pro Trp Thr Leu Leu Gly Ala Val Asn Leu Ser Pro Pro
                          955
                950
Cys Arg Ala Val Glu Gly Arg Gly Pro Asp Ala Cys Val Thr Ser Arg
                             970
            965
Ala Ser Glu Glu Ala Pro Ala Phe Val Gln Leu Gly Pro Gln Ser Thr
                                     990
          980 985
His His Ser Pro Arg Thr Pro Arg Ser Leu Asp His Leu His Pro Glu
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                  1000
Asp Arg Pro
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<210> 2144
<211> 56
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(55)
<223> Xaa = any amino acid or nothing

<210> 2145
<211> 215
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(211)
<223> Kaa = any amino acid or nothing

<400> 2145 Lys Leu Leu Trp Leu Pro Pro His Ser Glu Gln Lys Arg Ser Pro Leu 10 5 Tyr His Pro Gln Gly Pro Ser Gly Thr Thr Pro Ser Ala Pro Phe Ser 25 20 Ser His Ser Pro Pro Pro Ser Leu Leu Glm Ala Pro Ser Ile Ala Ala 40 35 Phe Leu Arg Thr His Gly His Ile Ser Ala Ser Gly Pro Leu Arg Met 60 55 50 Pro Phe Pro His His Xaa Asn Ala Phe Leu Leu Val Phe Pro Gly Gln 75 70 Arg Ser Gln Leu Thr Ser Pro Ser His Tyr Leu Cys Arg Glu Val Phe 90 85 Pro Asp His His His Leu Cys Arg Leu Ser Leu Glu Ser Ser Pro 110 105 Leu Phe His His Arg Val Leu Phe Cys Val Pro Lys Gln Asn Val Asn 125 120

Ser Thr Arg Ala Gln Ile Phe Cys Leu Phe Val His Ile Val Gly Cys 135 140 Arg Cys Ile Asn Thr Phe Pro Leu His Leu Phe Arg Leu His Leu Trp 150 155 Leu His Phe Leu Gln Ile Pro Leu Cys Lys Lys Asn Lys Ser Val Lys 170 175 Leu Gly Lys Thr Val Val Gly Arg Gly Cys Gln Ser Ala Ala Gly Ser 180 185 Asp Thr Arg Val Arg Ala Ala Val Gly Ala Pro Gly Leu Pro Val Glu 195 200 Pro Leu Val 210 211

<210> 2146
<211> 291
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(289)
<223> Xaa = any amino acid or nothing

<400> 2146 His Ser Ala Leu Leu Thr His Ser Ser Phe Cys Val Phe Thr Leu Cys 10 Gln Asp Phe Phe Thr Tyr Ser Ser Met Ser Glu Glu Val Thr Tyr Ala 25 Asp Leu Gln Phe Gln Asn Ser Ser Glu Met Glu Lys Ile Pro Glu Ile 40 Gly Lys Phe Gly Glu Lys Ala Pro Pro Ala Pro Ser His Val Trp Arg 55 Pro Ala Ala Leu Phe Leu Thr Leu Leu Cys Leu Leu Leu Ile Gly 70 75 Leu Gly Val Leu Ala Ser Met Phe His Val Thr Leu Lys Ile Glu Met 90 Lys Lys Met Asn Lys Leu Gln Asn Ile Ser Glu Glu Leu Gln Arg Asn 100 105 Ile Ser Leu Gln Leu Met Ser Asn Met Asn Ile Ser Asn Lys'Ile Arg 115 120 125 Asn Leu Ser Thr Thr Leu Gln Thr Ile Ala Thr Lys Leu Cys Arg Glu 135 140 Leu Tyr Ser Lys Glu Gln Glu His Lys Cys Lys Pro Cys Pro Arg Arg 150 155 Trp Ile Trp His Lys Asp Ser Cys Tyr Phe Leu Ser Asp Asp Val Gln 165 170 Thr Trp Gln Glu Ser Lys Met Ala Cys Ala Ala Gln Asn Ala Ser Leu 180 185 190 Leu Lys Ile Asn Asn Lys Asn Ala Leu Glu Phe Ile Lys Ser Gln Ser 200 205 Arg Ser Tyr Asp Tyr Trp Leu Gly Leu Ser Pro Glu Glu Asp Ser Tyr 215 220 Ser Trp Tyr Glu Ser Gly Kaa Tyr Asn Gln Pro Ser Ala Trp Val Ile 230 · 235 Arg Asn Ala Pro Asp Leu Asn Asn Met Tyr Cys Gly Tyr Ile Asn Arg 245 250 Leu Tyr Val Gln Tyr Tyr His Cys Thr Tyr Lys Gln Arg Met Ile Cys 260 265 Glu Lys Met Ala Asn Pro Val Gln Leu Gly Ser Thr Tyr Phe Arg Glu 280 285

289

<210> 2147 <211> 604 <212> PRT <213> Homo sapiens <221> misc feature <222> (1)...(602) <223> Xaa = any amino acid or nothing <400> 2147 Pro Gly Ser Thr His Ala Ser Ala Arg Ser Gln Val Pro Arg Ser Ala 1 5 10 15 Gly Glu Ala Ala Pro His Ser Arg Arg Pro Pro Gly Leu Leu Pro His 25 Ala Pro Arg Ala Ala Ser Ala Gln Leu Glu Glu Arg Met Arg Asp Pro 35 40 His Pro Gly Met Thr Leu Gln Glu Gly Asp Cys Arg Gly Ser Gln Thr 55 60 Val Ser Leu Thr Met Gly Thr Ala Asp Ser Asp Glu Met Ala Pro Glu 70 75 Ala Pro Gln His Thr His Ile Asp Val His Ile His Gln Glu Ser Ala 85 90 Leu Ala Lys Leu Leu Leu Thr Cys Cys Ser Ala Leu Arg Pro Arg Ala 100 Thr Gln Ala Arg Gly Ser Ser Arg Leu Leu Val Ala Ser Trp Val Met 115 120 125 Gln Ile Val Leu Gly Ile Leu Ser Ala Val Leu Gly Gly Phe Phe Tyr 140 135 Ile Arg Asp Tyr Thr Leu Leu Val Thr Ser Gly Ala Ala Ile Trp Thr 150 155 Gly Ala Val Ala Val Leu Ala Gly Ala Ala Ala Phe Ile Tyr Glu Lys 170 165 Arg Gly Gly Thr Tyr Trp Ala Leu Leu Arg Thr Leu Leu Ala Leu Ala 185 190 180 Ala Phe Ser Thr Ala Ile Ala Ala Leu Lys Leu Trp Asn Glu Asp Phe 200 Arg Tyr Gly Tyr Ser Tyr Tyr Asn Ser Ala Cys Arg Ile Ser Ser Ser 215 220 Ser Asp Trp Asn Thr Pro Ala Pro Thr Gln Ser Pro Glu Glu Val Arg 225 230 235 Arg Leu His Leu Cys Thr Ser Phe Met Asp Met Leu Lys Ala Leu Phe 250 255 245 Arg Thr Leu Gln Ala Met Leu Leu Gly Val Trp Ile Leu Leu Leu Leu 260 265 270

295 300 Val Ser Gly Ile Xaa Pro Gly Ser Thr His Ala Ser Ala Arg Ser Gln 310 315 Val Pro Arg Ser Ala Gly Glu Ala Ala Pro His Ser Arg Arg Pro Pro 325 335 330 Gly Leu Leu Pro His Ala Pro Arg Ala Ala Ser Ala Gin Leu Glu Glu 350 340 345 Arg Met Arg Asp Pro His Pro Gly Met Thr Leu Gln Glu Gly Asp Cys 355 360 365 360 Arg Gly Ser Gln Thr Val Ser Leu Thr Met Gly Thr Ala Asp Ser Asp 375 380 Glu Met Ala Pro Glu Ala Pro Gln His Thr His Ile Asp Val His Ile

390

Ala Ser Leu Thr Pro Leu Trp Leu Ser Leu Arg Gly Glu Cys Ser Gln 275. 280 285

Pro Lys Gly Xaa Val Pro Lys Lys Arg Asp Gln Lys Glu Met Leu Glu

395

His Gln Glu Ser Ala Leu Ala Lys Leu Leu Leu Thr Cys Cys Ser Ala 405 410 Leu Arg Pro Arg Ala Thr Gln Ala Arg Gly Ser Ser Arg Leu Leu Val 420 425 Ala Ser Trp Val Met Gln Ile Val Leu Gly Ile Leu Ser Ala Val Leu 440 Gly Gly Phe Phe Tyr Ile Arg Asp Tyr Thr Leu Leu Val Thr Ser Gly 455 460 Ala Ala Ile Trp Thr Gly Ala Val Ala Val Leu Ala Gly Ala Ala Ala 470 475 Phe Ile Tyr Glu Lys Arg Gly Gly Thr Tyr Trp Ala Leu Leu Arg Thr 485 490 Leu Leu Ala Leu Ala Ala Phe Ser Thr Ala Ile Ala Ala Leu Lys Leu 500 505 Trp Asn Glu Asp Phe Arg Tyr Gly Tyr Ser Tyr Tyr Asn Ser Ala Cys 515 520 525 Arg Ile Ser Ser Ser Ser Asp Trp Asn Thr Pro Ala Pro Thr Gln Ser 535 540 Pro Glu Glu Val Arg Arg Leu His Leu Cys Thr Ser Phe Met Asp Met 550 555 Leu Lys Ala Leu Phe Arg Thr Leu Gln Ala Met Leu Leu Gly Val Trp 565 . 570 Ile Leu Leu Leu Ala Ser Leu Thr Pro Leu Trp Leu Tyr Cys Trp 580 585 Arg Met Phe Pro Thr Lys Gly Val Ser Pro 600

<210> 2148 <211> 460 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(458) <223> Xaa = any amino acid or nothing

<400> 2148 Val Pro Asn Tyr Leu Pro Ser Val Ser Ser Ala Ile Gly Gly Glu Val Pro Gln Arg Tyr Val Trp Arg Phe Cys Ile Gly Leu His Ser Ala Pro 25 Arg Phe Leu Val Ala Phe Ala Tyr Trp Asn His Tyr Leu Ser Cys Thr . 40 Ser Pro Cys Ser Cys Tyr Arg Pro Leu Cys Arg Leu Asn Phe Gly Leu 55 Asn Val Val Glu Asn Leu Ala Leu Leu Val Leu Thr Tyr Val Ser Ser Ser Glu Asp Phe Thr Trp Val Pro Gly Xaa Gly Arg Ser Gly Glu Val 85 90 Phe Pro Glu Gly Thr Gly Leu Pro Leu Pro His Ser Asp Leu Pro Thr 100 105 Ser Trp Cys Gly His Ser Leu Gln Cys Gly Ser Gln Ser Ser Phe Pro 115 120 125 Pro Ala Ile His Glu Asn Ala Phe Ile Val Phe Ile Ala Ser Ser Leu 140 135 Gly His Met Leu Leu Thr Cys Ile Leu Trp Arg Leu Thr Lys Lys His 145 150 155 Thr Val Ser Gln Glu Asp Gly Leu Ser Leu Ala Gly Ala Pro Arg Gln 170 175 Pro Arg Arg Lys Ser Arg Thr Ser Val Leu Arg Ile Arg Val Met Val 185

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Arg Trp Glu Leu Ser Ser Asn Gly Asn Pro Gly Arg Gly Val Leu Gly
                        200
      195
Leu Gly Leu Gly Leu Gly Asn Lys Leu Arg Val Val Gly Gln Asn Leu
                                       220
                     215
  210
Gly Leu Xaa His Cys Val Trp Val Val Trp Glu Thr Gly Glu Xaa Lys
                                  235
                230
225
Arg Trp Arg Leu Gln Met Gly Ile Glu Xaa Gly Val Ala Ser Arg Arg
                                                  255
                               250
             245
Gln Xaa Val Arg Asn Ser Val Arg Gly Leu Val Cys His Asn Ser Ser
                            265
          260
Ala Pro Pro Met Tyr Met Gly Phe Phe Ser Pro Thr Val Phe Gly Gly
                        280
                                  285
       275
Gly Val Gly Gly Xaa Leu His Val Thr Phe Ile Leu His Pro Pro Glu
                                       300
             295
Val Glu Ala Ala Gly Ile Pro Leu Leu Gly Pro Ser Leu Pro Gln
                  310 315
Arg Gln Gly Arg Glu His Ile Val Val Ile Leu Ala Ala Pro Ala Cys
                                                 335
                                330
              325
Ala Pro Phe His Asp Arg Xaa Trp Glu Pro Arg Glu Ile Arg Pro Ser
                                             350
                             345
          340
Pro Xaa Glu Leu Gly Leu Arg Gly Glu Pro Thr Leu Ser Tyr Pro Ala
                                          365
     355
                        360
Ser Cys Arg Val Ile Arg Gln Pro Ile Pro Xaa Asp Arg Lys Ser Tyr
                              380
                    375
Ser Trp Lys Gln Arg Leu Phe Ile Ile Asn Phe Ile Ser Phe Phe Ser
                 390
                                  395
Ala Leu Ala Val Tyr Phe Arg His Asn Met Tyr Cys Glu Ala Gly Val
                               410
                                                  415
            405
Tyr Thr Ile Phe Ala Ile Leu Glu Tyr Thr Val Val Leu Thr Asn Met
                                              430
                           425
Ala Phe His Met Thr Ala Trp Trp Asp Phe Gly Asn Lys Glu Leu Leu 435 440 445
Ile Thr Ser Gln Pro Glu Glu Lys Arg Phe
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<210> 2149 <211> 294 <212> PRT <213> Homo sapiens

<400> 2149 Phe Phe Phe Gln Arg Ile Asn Phe Ile Glu His Ser Gly Ser Val Ser Leu Leu Ala Leu Ala Cys Asp Leu Gly Trp Cys Glu Asp Trp Ser Cys Cys Leu Val Gln Gly Gly Asp Leu Val Asp Val Val Gln Thr Asn His Gly Glu Asp Glu Ala Gly Gly Asp Thr Asp Ser Val Asp Glu Ala Arg Cys Lys Glu Ser Gln Gln Glu Ala Gln Glu Asn Leu Arg Glu Asp Leu Cys Leu Glu Ser Phe Ala Lys Asp Lys Ile Leu Gln Ile Ile Glu Gly Ser Glu Arg Glu His Glu Glu Thr Arg Thr Lys Gln Ala Ala Leu Asp Gly Glu Pro Leu Gly Gly Gly Gln Leu Thr Ala Val His Leu His Pro Ser Lys Glu Gln Gln Gly Gln Glu Gly Glu Arg Gln Arg Gly Ala Arg Thr His His Trp Arg Gly Trp Glu Lys Gly Arg Arg Val 

Arg Leu Arg Pro Pro Ser Gly Lys Leu Arg Ala Asp Gln Pro Val Arg 165 170 Lys Leu Gly Gly Pro Thr Pro Ser Thr Glu Leu Pro Gly Leu Gln Pro 185 180 His Ala Pro Thr Pro His Thr Ala Pro Ala Thr Pro Thr Tyr Ser Pro 195 200 205 Ala Pro Asp Thr Pro Asn Pro Pro Val Arg Trp Lys Cys Pro Leu Pro 210 215 220 Val Glu Pro Arg Thr Arg Gln Leu Cys Arg Glu Arg Thr Arg Lys Ala 225 230 235 Cys Pro Pro Lys Pro Arg Pro Pro Leu Gly Leu Pro Gly Asp Pro Thr 245 250 . 255 Gly Pro Val Thr His His Ala Pro Pro Val Ser Pro Thr Gly Ala Ser 260 265 270 Gly Gln Glu Arg Arg Ala Glu Pro Gly Ala Val Ser Tyr Ala His Ala 275 280 Ser Ala Thr Lys 290 292

<210> 2150 <211> 222 <212> PRT <213> Homo sapiens

<400> 2150 Ser Ala Gln Arg Trp Ala Ala Val Ala Gly Arg Trp Gly Cys Arg Leu 10 Leu Ala Leu Leu Leu Val Pro Gly Pro Gly Gly Ala Ser Glu Ile 25 Thr Phe Glu Leu Pro Asp Asn Ala Lys Gln Cys Phe Tyr Glu Asp Ile 35 40 Ala Gln Gly Thr Lys Cys Thr Leu Glu Phe Gln Val Ile Thr Gly Gly 60 His Tyr Asp Val Asp Cys Arg Leu Glu Asp Pro Asp Gly Lys Val Leu 75 70 Tyr Lys Glu Met Lys Lys Gln Tyr Asp Ser Phe Thr Phe Thr Ala Ser 90 Lys Asn Gly Thr Tyr Lys Phe Cys Phe Ser Asn Glu Phe Ser Thr Phe 100 105 110 Thr His Lys Thr Val Tyr Phe Asp Phe Gln Val Gly Glu Thr His Leu 115 120 125 Cys Phe Leu Val Arg Asp Arg Val Ser Ala Leu Thr Gln Met Glu Ser 135 140 Ala Cys Val Ser Ile His Glu Ala Leu Lys Ser Val Ile Asp Tyr Gln 150 155 Thr His Phe Arg Leu Arg Glu Ala Gln Gly Arg Ser Arg Ala Glu Asp 170 175 165 Leu Asn Thr Arg Val Ala Tyr Trp Ser Val Gly Glu Ala Leu Ile Leu 180 185 190 Leu Val Val Ser Ile Gly Gln Val Phe Leu Leu Lys Ser Phe Phe Ser 200 Asp Lys Arg Thr Thr Thr Thr Arg Val Gly Ser 210

<210> 2151 <211> 440 <212> PRT <213> Homo sapiens

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Asn Leu Ser Gly Ser Gln Arg Glu Pro Gln Thr Glu Gly Ser Met Asp
                  25
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Gly Trp Arg Arg Met Pro Arg Trp Gly Leu Leu Leu Leu Trp Gly
             40
Ser Cys Thr Phe Gly Leu Pro Thr Asp Thr Thr Thr Phe Lys Arg Ile
                                     60
 50
                   55
Phe Leu Lys Arg Met Pro Ser Ile Arg Glu Ser Leu Lys Glu Arg Gly
                                  75
              70
Val Asp Met Ala Arg Leu Gly Pro Glu Trp Ser Gln Pro Met Lys Arg
                 90
             85
Leu Thr Leu Gly Asn Thr Thr Ser Ser Val Ile Leu Thr Asn Tyr Met 100 105 110
Asp Thr Gln Tyr Tyr Gly Glu Ile Gly Ile Gly Thr Pro Pro Gln Thr
  115 120
Phe Lys Val Val Phe Asp Thr Gly Ser Ser Asn Val Trp Val Pro Ser
         135
Ser Lys Cys Ser Arg Leu Tyr .Thr Ala Cys Val Tyr His Lys Leu Phe
                                155
                150
Asp Ala Ser Asp Ser Ser Ser Tyr Lys His Asn Gly Thr Glu Leu Thr
                            170
             165
Leu Arg Tyr Ser Thr Gly Thr Val Ser Gly Phe Leu Ser Gln Asp Ile
                                  190
                          185
         180
Ile Thr Val Gly Gly Ile Thr Val Thr Gln Met Phe Gly Glu Val Thr
             200
      195
Glu Met Pro Ala Leu Pro Phe Met Leu Ala Glu Phe Asp Gly Val Val
                                    220
   210 215
Gly Met Gly Phe Ile Glu Gln Ala Ile Gly Arg Val Thr Pro Ile Phe
                                 235
                230
Asp Asn Ile Ile Ser Gln Gly Val Leu Lys Glu Asp Val Phe Ser Phe
             245
                             250
Tyr Tyr Asn Arg Asp Ser Glu Asn Ser Gln Ser Leu Gly Gly Gln Ile
                                           270
         260
                          265
Val Leu Gly Gly Ser Asp Pro Gln His Tyr Glu Gly Asn Phe His Tyr
             280
       275
Ile Asn Leu Ile Lys Thr Gly Val Trp Gln Ile Gln Met Lys Gly Val
  290 295
                                    300
Ser Val Gly Ser Ser Thr Leu Leu Cys Glu Asp Gly Cys Leu Ala Leu
305 310
                                 315
Val Asp Thr Gly Ala Ser Tyr Ile Ser Gly Ser Thr Ser Ser Ile Glu
                                      335
                              330
             325
Lys Leu Met Glu Ala Leu Gly Ala Lys Glu Lys Arg Leu Phe Asp Tyr
                                   350
                         345
         340
Val Val Lys Cys Asn Glu Gly Pro Thr Leu Pro Pro Thr Phe Leu Phe 355 360 365
Leu Leu Gly Gly Lys Asp Thr Pro Leu Thr Ser Ala Asp Tyr Leu Phe
                    375 380
Gln Glu Ser Tyr Ser Ser Lys Lys Leu Ser Thr Leu Ala Ile His Ala
               390
                                 395
Met Tyr Ile Pro Pro Pro Thr Gly Pro Thr Leu Ala Leu Gly Ala Thr
                             410
             405
Phe Ile Arg Lys Phe Tyr Thr Glu Phe Asp Arg Gly Asn Asn Pro His
                    425
          420
Gly Phe Ala Leu Ala Arg
               438
      435
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<210> 2152 <211> 2045 <212> PRT

## <213> Homo sapiens

<400> 2152 Met Cys Leu Gly Arg Met Gly Ala Ser Ser Pro Arg Ser Pro Glu Pro Val Gly Pro Pro Ala Pro Gly Leu Pro Phe Cys Cys Gly Gly Ser Leu Leu Ala Val Val Leu Leu Ala Leu Pro Val Ala Trp Gly Gln Cys Asn Ala Pro Glu Trp Leu Pro Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser Val Trp Thr Gly Ala Lys Asp Arg Cys Arg Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro Val Asn Gly Met Val His Val Ile Lys Gly Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp Thr Val Ile Trp Asp Asn Glu Thr Pro Ile Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro Thr Ile Thr Asn Gly Asp Phe Ile Ser Thr Asn Arg Glu Asn Phe His Tyr Gly Ser Val Val Thr Tyr Arg Cys Asn Pro Gly Ser Gly Gly Arg Lys Val Phe Glu Leu Val Gly Glu Pro Ser Ile Tyr Cys Thr Ser Asn Asp 210 215 220 Asp Gln Val Gly Ile Trp Ser Gly Pro Ala Pro Gln Cys Ile Ile Pro Asn Lys Cys Thr Pro Pro Asn Val Glu Asn Gly Ile Leu Val Ser Asp Asn Arg Ser Leu Phe Ser Leu Asn Glu Val Val Glu Phe Arg Cys Gln Pro Gly Phe Val Met Lys Gly Pro Arg Arg Val Lys Cys Gln Ala Leu Asn Lys Trp Glu Pro Glu Leu Pro Ser Cys Ser Arg Val Cys Gln Pro Pro Pro Asp Val Leu His Ala Glu Arg Thr Gln Arg Asp Lys Asp Asn Phe Ser Pro Gly Gln Glu Val Phe Tyr Ser Cys Glu Pro Gly Tyr Asp Leu Arg Gly Ala Ala Ser Met Arg Cys Thr Pro Gln Gly Asp Trp Ser Pro Ala Ala Pro Thr Cys Glu Val Lys Ser Cys Asp Asp Phe Met Gly Gln Leu Leu Asn Gly Arg Val Leu Phe Pro Val Asn Leu Gln Leu Gly Ala Lys Val Asp Phe Val Cys Asp Glu Gly Phe Gln Leu Lys Gly Ser Ser Ala Ser Tyr Cys Val Leu Ala Gly Met Glu Ser Leu Trp Asn Ser Ser Val Pro Val Cys Glu Gln Ile Phe Cys Pro Ser Pro Pro Val Ile Pro Asn Gly Arg His Thr Gly Lys Pro Leu Glu Val Phe Pro Phe Gly Lys Ala Val Asn Tyr Thr Cys Asp Pro His Pro Asp Arg Gly Thr Ser Phe Asp Leu Ile Gly Glu Ser Thr Ile Arg Cys Thr Ser Asp Pro Gln 

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Gly Asn Gly Val Trp Ser Ser Pro Ala Pro Arg Cys Gly Ile Leu Gly
                                490
              485
His Cys Gln Ala Pro Asp His Phe Leu Phe Ala Lys Leu Lys Thr Gln
                     505
                                                510
          500
Thr Asn Ala Ser Asp Phe Pro Ile Gly Thr Ser Leu Lys Tyr Glu Cys
                        520
                                          525
     515
Arg Pro Glu Tyr Tyr Gly Arg Pro Phe Ser Ile Thr Cys Leu Asp Asn
                                        540
                    535
Leu Val Trp Ser Ser Pro Lys Asp Val Cys Lys Arg Lys Ser Cys Lys
                                    555
                 550
Thr Pro Pro Asp Pro Val Asn Gly Met Val His Val Ile Thr Asp Ile
                       570
              565
Gln Val Gly Ser Arg Ile Asn Tyr Ser Cys Thr Thr Gly His Arg Leu
                                     590
                    585
  · 580
Ile Gly His Ser Ser Ala Glu Cys Ile Leu Ser Gly Asn Ala Ala His
                         600
  595
Trp Ser Thr Lys Pro Pro Ile Cys Gln Arg Ile Pro Cys Gly Leu Pro
                                        620
                     615
Pro Thr Ile Ala Asn Gly Asp Phe Ile Ser Thr Asn Arg Glu Asn Phe
                           635
                  630
His Tyr Gly Ser Val Val Thr Tyr Arg Cys Asn Pro Gly Ser Gly Gly
              645
                                650
Arg Lys Val Phe Glu Leu Val Gly Glu Pro Ser Ile Tyr Cys Thr Ser
                            665
         660
Asn Asp Asp Gln Val Gly Ile Trp Ser Gly Pro Ala Pro Gln Cys Ile
                       680
       675
Ile Pro Asn Lys Cys Thr Pro Pro Asn Val Glu Asn Gly Ile Leu Val
                                        700
                 695
Ser Asp Asn Arg Ser Leu Phe Ser Leu Asn Glu Val Val Glu Phe Arg
                         715
                  710
Cys Gln Pro Gly Phe Val Met Lys Gly Pro Arg Arg Val Lys Cys Gln
                                 730
               725
Ala Leu Asn Lys Trp Glu Pro Glu Leu Pro Ser Cys Ser Arg Val Cys
                                       750
                             745
          740
Gln Pro Pro Pro Asp Val Leu His Ala Glu Arg Thr Gln Arg Asp Lys
                                             765 ·
                         760
    755
Asp Asn Phe Ser Pro Gly Gln Glu Val Phe Tyr Ser Cys Glu Pro Gly
                                        780
                      775
Tyr Asp Leu Arg Gly Ala Ala Ser Met Arg Cys Thr Pro Gln Gly Asp
                                     795
                  790
Trp Ser Pro Ala Ala Pro Thr Cys Glu Val Lys Ser Cys Asp Asp Phe
                                                   815
                                 810
               805
Met Gly Gln Leu Leu Asn Gly Arg Val Leu Phe Pro Val Asn Leu Gln
                                                830
                             825
           820
Leu Gly Ala Lys Val Asp Phe Val Cys Asp Glu Gly Phe Gln Leu Lys
835 840 845
Gly Ser Ser Ala Ser Tyr Cys Val Leu Ala Gly Met Glu Ser Leu Trp
                                        860
                      855
Asn Ser Ser Val Pro Val Cys Glu Gln Ile Phe Cys Pro Ser Pro Pro
                   870
                                     875
Val Ile Pro Asn Gly Arg His Thr Gly Lys Pro Leu Glu Val Phe Pro
               885
                                 890
Phe Gly Lys Ala Val Asn Tyr Thr Cys Asp Pro His Pro Asp Arg Gly
                            905
                                         910
           900
Thr Ser Phe Asp Leu Ile Gly Glu Ser Thr Ile Arg Cys Thr Ser Asp
                                             925
                         920
 Pro Gln Gly Asn Gly Val Trp Ser Ser Pro Ala Pro Arg Cys Gly Ile
                                         940
                       935
Leu Gly His Cys Gln Ala Pro Asp His Phe Leu Phe Ala Lys Leu Lys
                                     955
                 950
 Thr Gln Thr Asn Ala Ser Asp Phe Pro Ile Gly Thr Ser Leu Lys Tyr
                                                    975
                      970
               965
 Glu Cys Arg Pro Glu Tyr Tyr Gly Arg Pro Phe Ser Ile Thr Cys Leu
            980
                              985
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Asp Asn Leu Val Trp Ser Ser Pro Lys Asp Val Cys Lys Arg Lys Ser 995 1000 1005 Cys Lys Thr Pro Pro Asp Pro Val Asn Gly Met Val His Val Ile Thr 1010 1015 1020 Asp Ile Gln Val Gly Ser Arg Ile Asn Tyr Ser Cys Thr Thr Gly His 1025 1030 1035 1040 Arg Leu Ile Gly His Ser Ser Ala Glu Cys Ile Leu Ser Gly Asn Thr 1050 1055 1045 Ala His Trp Ser Thr Lys Pro Pro Ile Cys Gln Arg Ile Pro Cys Gly 1070 1060 1065 Leu Pro Pro Thr Ile Ala Asn Gly Asp Phe Ile Ser Thr Asn Arg Glu 1075 1080 1085 Asn Phe His Tyr Gly Ser Val Val Thr Tyr Arg Cys Asn Leu Gly Ser 1090 1095 1100 Arg Gly Arg Lys Val Phe Glu Leu Val Gly Glu Pro Ser Ile Tyr Cys 1105 · 1115 1110 Thr Ser Asn Asp Asp Gln Val Gly Ile Trp Ser Gly Pro Ala Pro Gln 1125 1130 1135 Cys Ile Ile Pro Asn Lys Cys Thr Pro Pro Asn Val Glu Asn Gly Ile 1140 1145 1150 Leu Val Ser Asp Asn Arg Ser Leu Phe Ser Leu Asn Glu Val Val Glu 1155 1160 1165 Phe Arg Cys Gln Pro Gly Phe Val Met Lys Gly Pro Arg Arg Val Lys 1170 1175 1180 Cys Gln Ala Leu Asn Lys Trp Glu Pro Glu Leu Pro Ser Cys Ser Arg 1190 1195 1200 Val Cys Gln Pro Pro Pro Glu Ile Leu His Gly Glu His Thr Pro Ser 1205 1210 1215 His Gln Asp Asn Phe Ser Pro Gly Gln Glu Val Phe Tyr Ser Cys Glu 1220 1225 1230 Pro Gly Tyr Asp Leu Arg Gly Ala Ala Ser Leu His Cys Thr Pro Gln 1240 1245 Gly Asp Trp Ser Pro Glu Ala Pro Arg Cys Ala Val Lys Ser Cys Asp 1255 1260 1250 Asp Phe Leu Gly Gln Leu Pro His Gly Arg Val Leu Phe Pro Leu Asn 1265 1270 1275 Leu Gln Leu Gly Ala Lys Val Ser Phe Val Cys Asp Glu Gly Phe Arg 1285 1290 Leu Lys Gly Ser Ser Val Ser His Cys Val Leu Val Gly Met Arg Ser 1310 1305 Leu Trp Asn Asn Ser Val Pro Val Cys Glu His Ile Phe Cys Pro Asn 1315 1320 1325 Pro Pro Ala Ile Leu Asn Gly Arg His Thr Gly Thr Pro Ser Gly Asp 1330 1335 1340 Ile Pro Tyr Gly Lys Glu Ile Ser Tyr Thr Cys Asp Pro His Pro Asp 1350 1355 1360 Arg Gly Met Thr Phe Asn Leu Ile Gly Glu Ser Thr Ile Arg Cys Thr 1365 1370 1375 Ser Asp Pro His Gly Asn Gly Val Trp Ser Ser Pro Ala Pro Arg Cys 1380 1385 1390 Glu Leu Ser Val Arg Ala Gly His Cys Lys Thr Pro Glu Gln Phe Pro 1395 1400 1405 Phe Ala Ser Pro Thr Ile Pro Ile Asn Asp Phe Glu Phe Pro Val Gly 1415 1420 Thr Ser Leu Asn Tyr Glu Cys Arg Pro Gly Tyr Phe Gly Lys Met Phe 1425 1430 1435 Ser Ile Ser Cys Leu Glu Asn Leu Val Trp Ser Ser Val Glu Asp Asn 1445 1450 1455 Cys Arg Arg Lys Ser Cys Gly Pro Pro Pro Glu Pro Phe Asn Gly Met 1460 1465 1470 Val His Ile Asn Thr Asp Thr Gln Phe Gly Ser Thr Val Asn Tyr Ser 1475 1480 1485 Cys Asn Glu Gly Phe Arg Leu Ile Gly Ser Pro Ser Thr Thr Cys Leu 1495 1500

Val Ser Gly Asn Asn Val Thr Trp Asp Lys Lys Ala Pro Ile Cys Glu 1510 1515 Ile Ile Ser Cys Glu Pro Pro Pro Thr Ile Ser Asn Gly Asp Phe Tyr 1525 1530 Ser Asn Asn Arg Thr Ser Phe His Asn Gly Thr Val Val Thr Tyr Gln 1540 1545 1550 Cys His Thr Gly Pro Asp Gly Glu Gln Leu Phe Glu Leu Val Gly Glu 1555 1560 1565 Arg Ser Ile Tyr Cys Thr Ser Lys Asp Asp Gln Val Gly Val Trp Ser 1570 1575 1580 Ser Pro Pro Pro Arg Cys Ile Ser Thr Asn Lys Cys Thr Ala Pro Glu 1590 1595 1600 Val Glu Asn Ala Ile Arg Val Pro Gly Asn Arg Ser Phe Phe Ser Leu 1610 1615 1605 Thr Glu Ile Ile Arg Phe Arg Cys Gln Pro Gly Phe Val Met Val Gly
1620 1625 1630 Ser His Thr Val Gln Cys Gln Thr Asn Gly Arg Trp Gly Pro Lys Leu 1635 1640 1545 Pro His Cys Ser Arg Val Cys Gln Pro Pro Pro Glu Ile Leu His Gly 1650 1655 1660 Glu His Thr Leu Ser His Gln Asp Asn Phe Ser Pro Gly Gln Glu Val 1665 1670 1675 1680 Phe Tyr Ser Cys Glu Pro Ser Tyr Asp Leu Arg Gly Ala Ala Ser Leu 1685 1690 1695 His Cys Thr Pro Gln Gly Asp Trp Ser Pro Glu Ala Pro Arg Cys Thr 1700 1705 1710 Val Lys Ser Cys Asp Asp Phe Leu Gly Gln Leu Pro His Gly Arg Val 1715 1720 1725 Leu Leu Pro Leu Asn Leu Gln Leu Gly Ala Lys Val Ser Phe Val Cys 1735 1740 Asp Glu Gly Phe Arg Leu Lys Gly Arg Ser Ala Ser His Cys Val Leu 1755 1745 1750 Ala Gly Met Lys Ala Leu Trp Asn Ser Ser Val Pro Val Cys Glu Gln 1765 1770 1775 Ile Phe Cys Pro Asn Pro Pro Ala Ile Leu Asn Gly Arg His Thr Gly 1780 1785 1790 Thr Pro Leu Gly Asp Ile Pro Tyr Gly Lys Glu Val Ser Tyr Thr Cys 1795 1800 1805 Asp Pro His Pro Asp Arg Gly Met Thr Phe Asn Leu Ile Gly Glu Ser 1810 1815 1820 Thr Ile Arg Arg Thr Ser Glu Pro His Gly Asn Gly Val Trp Ser Ser 1825 1830 1835 Pro Ala Pro Arg Cys Glu Leu Pro Val Gly Ala Ala Cys Pro His Pro 1845 1850 1855 Pro Lys Ile Gln Asn Gly His Tyr Ile Gly Gly His Val Ser Leu Tyr 1860 1865 1870 Leu Pro Gly Met Thr Ile Ser Tyr Thr Cys Asp Pro Gly Tyr Leu Leu 1875 1880 1885 Val Gly Lys Gly Phe Ile Phe Cys Thr Asp Gln Gly Ile Trp Ser Gln 1895 1900 Leu Asp His Tyr Cys Lys Glu Val Asn Cys Ser Phe Pro Leu Phe Met 1910 1915 Asn Gly Ile Ser Lys Glu Leu Glu Met Lys Lys Val Tyr His Tyr Gly 1925 1930 1935 Asp Tyr Val Thr Leu Lys Cys Glu Asp Gly Tyr Thr Leu Glu Gly Ser 1945 1950 1940 Pro Trp Ser Gln Cys Gln Ala Asp Asp Arg Trp Asp Pro Pro Leu Ala 1955 1960 1965 Lys Cys Thr Ser Arg Thr His Asp Ala Leu Ile Val Gly Thr Leu Ser 1970 1975 1980 Gly Thr Ile Phe Phe Ile Leu Leu Ile Ile Phe Leu Ser Trp Ile Ile 1985 1990 1995 Leu Lys His Arg Lys Gly Asn Asn Ala His Glu Asn Pro Lys Glu Val 2005 2010 2015

Ala Ile His Leu His Ser Gln Gly Gly Ser Ser Val His Pro Arg Thr 2020 2025 2030

Leu Gln Thr Asn Glu Glu Asn Ser Arg Val Leu Pro 2035 2040

<210> 2153 <211> 1080 <212> PRT <213> Homo sapiens

<400> 2153

His Gly Arg Ser Ala Arg Leu Ala Ala Val Pro Ala Glu Ala Met Pro 10 Gly Pro Arg Arg Pro Ala Gly Ser Arg Leu Arg Leu Leu Leu Leu 25 20 Leu Leu Pro Pro Leu Leu Leu Leu Arg Gly Ser His Ala Gly Asn 40 Leu Thr Val Ala Val Val Leu Pro Leu Ala Asn Thr Ser Tyr Pro Trp 55 . 60 Ser Trp Ala Arg Val Gly Pro Ala Val Glu Leu Ala Leu Ala Gln Val 70 75 Lys Ala Arg Pro Asp Leu Leu Pro Gly Trp Thr Val Arg Thr Val Leu 85 Gly Ser Ser Glu Asn Ala Leu Gly Val Cys Ser Asp Thr Ala Ala Pro 105 Leu Ala Ala Val Asp Leu Lys Trp Glu His Asn Pro Ala Val Phe Leu 125 120 Gly Pro Gly Cys Val Tyr Ala Ala Ala Pro Val Gly Arg Phe Thr Ala 135 140 His Trp Arg Val Pro Leu Leu Thr Ala Gly Ala Pro Ala Leu Gly Phe 150 Gly Val Lys Asp Glu Tyr Ala Leu Thr Thr Arg Ala Gly Pro Ser Tyr 170 Ala Lys Leu Gly Asp Phe Val Ala Ala Leu His Arg Arg Leu Gly Trp 180 185 190 Glu Arg Gln Ala Leu Met Leu Tyr Ala Tyr Arg Pro Gly Asp Glu Glu 195 200 205 His Cys Phe Phe Leu Val Glu Gly Leu Phe Met Arg Val Arg Asp Arg 215 220 Leu Asn Ile Thr Val Asp His Leu Glu Phe Ala Glu Asp Asp Leu Ser 230 235 His Tyr Thr Arg Leu Leu Arg Thr Met Pro Arg Lys Gly Arg Val Ile 245 250 Tyr Ile Cys Ser Ser Pro Asp Ala Phe Arg Thr Leu Met Leu Leu Ala 260 265 Leu Glu Ala Gly Leu Cys Gly Glu Asp Tyr Val Phe Phe His Leu Asp 280 285 Ile Phe Gly Gln Ser Leu Gln Gly Gly Gln Gly Pro Ala Pro Arg Arg 295 300 Pro Trp Glu Arg Gly Asp Gly Gln Asp Val Ser Ala Arg Gln Ala Phe 310 315 Gln Ala Ala Lys Ile Ile Thr Tyr Lys Asp Pro Asp Asn Pro Glu Tyr 330 Leu Glu Phe Leu Lys Gln Leu Lys His Leu Ala Tyr Glu Gln Phe Asn 340 345 Phe Thr Met Glu Asp Gly Leu Val Asn Thr Ile Pro Ala Ser Phe His 355 360 Asp Gly Leu Leu Tyr Ile Gln Ala Val Thr Glu Thr Leu Ala His 375 380 Gly Gly Thr Val Thr Asp Gly Glu Asn Ile Thr Gln Arg Met Trp Asn

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Arg Ser Phe Gln Gly Val Thr Gly Tyr Leu Lys Ile Asp Ser Ser Gly
               405
Asp Arg Glu Thr Asp Phe Ser Leu Trp Asp Met Asp Pro Glu Asn Gly
                                                  430
                             425
          420
Ala Phe Arg Val Val Leu Asn Tyr Asn Gly Thr Ser Gln Glu Leu Val
                                             445
                       440
Ala Val Ser Gly Arg Lys Leu Asn Trp Pro Leu Gly Tyr Pro Pro Pro
                               460
                      455
Asp Ile Pro Lys Cys Gly Phe Asp Asn Glu Asp Pro Ala Cys Asn Gln
                                      475
                  470
Asp His Leu Ser Thr Leu Glu Val Leu Ala Leu Val Gly Ser Leu Ser
              485
                                  490
Leu Leu Gly Ile Leu Ile Val Ser Phe Phe Ile Tyr Arg Lys Met Gln
                             505
           500
Leu Glu Lys Glu Leu Ala Ser Glu Leu Trp Arg Val Arg Trp Glu Asp
                          520
                                           525
Val Glu Pro Ser Ser Leu Glu Arg His Leu Arg Ser Ala Gly Ser Arg
                                          540
                      535
Leu Thr Leu Ser Gly Arg Gly Ser Asn Tyr Gly Ser Leu Leu Thr Thr
                                     555
                  550
545
Glu Gly Gln Phe Gln Val Phe Ala Lys Thr Ala Tyr Tyr Lys Gly Asn
                                  570
               565
Leu Val Ala Val Lys Arg Val Asn Arg Lys Arg Ile Glu Leu Thr Arg
                                                590
                              585
Lys Val Leu Phe Glu Leu Lys His Met Arg Asp Val Gln Asn Glu His
                                             605
                          600
      595
Leu Thr Arg Phe Val Gly Ala Cys Thr Asp Pro Pro Asn Ile Cys Ile
                                          620
                      615
Leu Thr Glu Tyr Cys Pro Arg Gly Ser Leu Gln Asp Ile Leu Glu Asn
                                     635
                  630
Glu Ser Ile Thr Leu Asp Trp Met Phe Arg Tyr Ser Leu Thr Asn Asp
               645
                                  650
Ile Val Lys Gly Met Leu Phe Leu His Asn Gly Ala Ile Cys Ser His
                                                 670
                             665
Gly Asn Leu Lys Ser Ser Asn Cys Val Val Asp Gly Arg Phe Val Leu
                          680
                                              685
Lys Ile Thr Asp Tyr Gly Leu Glu Ser Phe Arg Asp Leu Asp Pro Glu
                      695
Gln Gly His Thr Val Tyr Ala Lys Lys Leu Trp Thr Ala Pro Glu Leu
                                      715
                   710
Leu Arg Met Ala Ser Pro Pro Val Arg Gly Ser Gln Ala Gly Asp Val
                                                      735
               725
                                   730
Tyr Ser Phe Gly Ile Ile Leu Gln Glu Ile Ala Leu Arg Ser Gly Val
                               745
Phe His Val Glu Gly Leu Asp Leu Ser Pro Lys Glu Ile Ile Glu Arg
                                              765
                          760
Val Thr Arg Gly Glu Gln Pro Pro Phe Arg Pro Ser Leu Ala Leu Gln.
                    775
                                           780
Ser His Leu Glu Glu Leu Gly Leu Leu Met Gln Arg Cys Trp Ala Glu
                                       795
                   790
Asp Pro Gln Glu Arg Pro Pro Phe Gln Gln Ile Arg Leu Thr Leu Arg
               805
                                   810
Lys Phe Asn Arg Glu Asn Ser Ser Asn Ile Leu Asp Asn Leu Leu Ser
                                                 830
           820
                               825
Arg Met Glu Gln Tyr Ala Asn Asn Leu Glu Glu Leu Val Glu Glu Arg
                          840
        835
Thr Gln Ala Tyr Leu Glu Glu Lys Arg Lys Ala Glu Ala Leu Leu Tyr
                                          860
                       855
Gln Ile Leu Pro His Ser Val Ala Glu Gln Leu Lys Arg Gly Glu Thr
                                       875
                   870
Val Gln Ala Glu Ala Phe Asp Ser Val Thr Ile Tyr Phe Ser Asp Ile
                                  890
               885
Val Gly Phe Thr Ala Leu Ser Ala Glu Ser Thr Pro Met Gln Val Val
                              905
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Thr Leu Leu Asn Asp Leu Tyr Thr Cys Phe Asp Ala Val Ile Asp Asn 920 Phe Asp Val Tyr Lys Val Glu Thr Ile Gly Asp Ala Tyr Met Val Val 935 Ser Gly Leu Pro Val Arg Asn Gly Arg Leu His Ala Cys Glu Val Ala 950 955 Arg Met Ala Leu Ala Leu Leu Asp Ala Val Arg Ser Phe Arg Ile Arg 965 970 His Arg Pro Gln Glu Gln Leu Arg Leu Arg Ile Gly Ile His Thr Gly 985 980 Pro Val Cys Ala Gly Val Val Gly Leu Lys Met Pro Arg Tyr Cys Leu 995 1000 . 1005 Phe Gly Asp Thr Val Asn Thr Ala Ser Arg Met Glu Ser Asn Gly Glu 1015 1020 Ala Leu Lys Ile His Leu Ser Ser Glu Thr Lys Ala Val Leu Glu Glu 1030 · 1035 Phe Gly Gly Phe Glu Leu Glu Leu Arg Gly Asp Val Glu Met Lys Gly 1050 1045 Lys Gly Lys Val Arg Thr Tyr Trp Leu Leu Gly Glu Arg Gly Ser Ser 1060 1065 Thr Arg Gly 1075

<210> 2154 <211> 1280 <212> PRT <213> Homo sapiens

<400> 2154 Asp Ala Pro Gly Arg Pro Pro Val Arg Leu Pro Thr Met Glu Leu Glu 10 Asp Gly Val Val Tyr Gln Glu Glu Pro Gly Gly Ser Gly Ala Val Met 20 25 Ser Glu Arg Val Ser Gly Leu Ala Gly Ser Ile Tyr Arg Glu Phe Glu 40 Arg Leu Ile Val Arg Tyr Asp Glu Glu Val Val Lys Glu Leu Ile Pro 55 60 Leu Val Val Ala Val Leu Glu Asn Leu Asp Ser Val Phe Ala Gln Asp 70 75 Gln Glu His Gln Val Glu Leu Glu Leu Leu Arg Asp Asp Asn Glu Gln 85 90 Leu Ile Thr Gln Tyr Glu Arg Glu Lys Ala Leu Arg Lys His Ala Glu 100 105 Glu Lys Phe Ile Glu Phe Glu Asp Ser Gln Glu Gln Glu Lys Lys Asp 120 125 Leu Gln Thr Arg Val Glu Ser Leu Glu Ser Gln Thr Arg Gln Leu Glu 135 140 Leu Lys Ala Lys Asn Tyr Ala Asp Gln Ile Ser Ile Leu Glu Glu Arg 150 155 Glu Ala Glu Leu Lys Lys Glu Tyr Asn Ala Leu His Gln Arg His Thr 170 Glu Met Ile His Asn Tyr Met Glu His Leu Glu Arg Thr Lys Leu His 180 185 190 Gln Leu Ser Gly Ser Asp Gln Leu Glu Ser Thr Ala His Ser Arg Ile 195 200 205 Arg Lys Glu Arg Pro Ile Ser Leu Gly Ile Phe Pro Leu Pro Ala Gly 215 220 Asp Gly Leu Leu Thr Pro Asp Ala Gln Lys Gly Gly Glu Thr Pro Gly 230 235 Ser Glu Gln Trp Lys Phe Gln Glu Leu Ser Gln Pro Arg Ser His Thr 245 250

Ser	Leu	Lys	Asp 260	Glu	Leu	Ser	Asp	Val 265	Ser	Gln	Gly	Gly	Ser 270	Lys	Ala
Thr	Thr	Pro 275	Ala	Ser	Thr	Ala	Asn 280		Asp	Val	Ala	Thr 285		Pro	Thr
	290	Pro	Leu			295	Asn				300				
305			Lys		310					315					320
			Arg	325					330					335	
			<b>Gln</b> 340					345					350		
		355	Ser				360					365			
	370		Ala			375					380				
385			Gly Met		390					395					400
			Glu	405					410					415	
			420 Val					425					430		
		435	Ala				440					445			
	450		Glu			455					460				
465			Lys		470					475					480
			Arg	485					490					495	
Arg	Asn		500 Tyr	Lys	Glu	Arg		505 Met	Glu	Leu	Gln		510 Ala	Val	Arg
Trp		515 Glu	Met	Ile	Arg		520 Ser	Arg	Glu	Asn	Pro	525 Ala	Met	Gln	Glu
Lys 545	530 Lys	Arg	ser	ser	Ile 550	535 Trp	Gln	Phe	Phe	Ser 555		Leu	Phe	Ser	Ser 560
	Ser	Asn	Thr	Thr 565		Lys	Pro	Glu	Pro 570	Pro	Val	Asn	Leu	Lys 575	Tyr
Asn	Ala	Pro	Thr 580		His	Val	Thr	Pro 585	Ser		Lys	Lys	Arg 590		Ser
		595	Gln				600					605			
	610		Thr			615					620				
625			Arg		630					635					640
			Phe	645					650					655	
	_		660					665					670		Tyr Ala
	_	675		_			680					685			Val
	690					695					700				Glu
705					710					715					720 Asp
-		_		725					730	)				735	Leu
			740					745					750	)	Val
201		755		#		-3-	760					765		•	

Leu Ile Ile Asp Ala Val Gln Pro Gly Asn Ile Leu Asp Ser Phe Thr 775 Val Cys Asn Ser His Val Leu Cys Ile Ala Ser Val Pro Gly Ala Arg 785 790 795 Glu Thr Asp Tyr Pro Ala Gly Glu Asp Leu Ser Glu Ser Gly Gln Val 805 810 Asp Lys Ala Ser Leu Cys Gly Ser Met Thr Ser Asn Ser Ser Ala Glu 820 825 Thr Asp Ser Leu Leu Gly Gly Ile Thr Val Val Gly Cys Ser Ala Glu 835 840 845 Gly Val Thr Gly Ala Ala Thr Ser Pro Ser Thr Asn Gly Ala Ser Pro 855 860 Val Met Asp Lys Pro Pro Glu Met Glu Ala Glu Asn Ser Glu Val Asp 870 875 Glu Asn Val Pro Thr Ala Glu Glu Ala Thr Glu Ala Thr Glu Gly Asn 885 890 Ala Gly Ser Ala Glu Asp Thr Val Asp Ile Ser Gln Thr Gly Val Tyr 900 905 Thr Glu His Val Phe Thr Asp Pro Leu Gly Val Gln Ile Pro Glu Asp 920 925 Leu Ser Pro Val Tyr Gln Ser Ser Asn Asp Ser Asp Ala Tyr Lys Asp 935 940 Gln Ile Ser Val Leu Pro Asn Glu Gln Asp Leu Val Arg Glu Glu Ala 950 955 Gln Lys Met Ser Ser Leu Leu Pro Thr Met Trp Leu Gly Ala Gln Asn 965 970 Gly Cys Leu Tyr Val His Ser Ser Val Ala Gln Trp Arg Lys Cys Leu 985 980 990 His Ser Ile Lys Leu Lys Asp Ser Ile Leu Ser Ile Val His Val Lys 995 1000 1005 Gly Ile Val Leu Val Ala Leu Ala Asp Gly Thr Leu Ala Ile Phe His 1010 1015 1020 Arg Gly Val Asp Gly Gln Trp Asp Leu Ser Asn Tyr His Leu Leu Asp 1030 1035 Leu Gly Arg Pro His His Ser Ile Arg Cys Met Thr Val Val His Asp 1045 1050 1055 Lys Val Trp Cys Gly Tyr Arg Asn Lys Ile Tyr Val Val Gln Pro Lys 1060 1065 1070 Ala Met Lys Ile Glu Lys Ser Phe Asp Ala His Pro Arg Lys Glu Ser 1075 1080 1085 Gln Val Arg Gln Leu Ala Trp Val Gly Asp Gly Val Trp Val Ser Ile 1095 1100 Arg Leu Asp Ser Thr Leu Arg Leu Tyr His Ala His Thr Tyr Gln His 1110 1115 Leu Gln Asp Val Asp Ile Glu Pro Tyr Val Ser Lys Met Leu Gly Thr 1125 1130 1135 Gly Lys Leu Gly Phe Ser Phe Val Arg Ile Thr Ala Leu Met Val Ser 1140 1145 1150 Cys Asn Arg Leu Trp Val Gly Thr Gly Asn Gly Val Ile Ile Ser Ile 1155 1160 1165 Pro Leu Thr Glu Thr Val Ile Leu His Gln Gly Arg Leu Leu Gly Leu 1175 1170 1180 Arg Ala Asn Lys Thr Ser Gly Val Pro Gly Asn Arg Pro Gly Ser Val 1190 1195 Ile Arg Val Tyr Gly Asp Glu Asn Ser Asp Lys Val Thr Pro Gly Thr 1205 1210 1215 Phe Ile Pro Tyr Cys Ser Met Ala His Ala Gln Leu Cys Phe His Gly 1220 1225 1230 His Arg Asp Ala Val Lys Phe Phe Val Ala Val Pro Gly Gln Val Ile 1240 1245 Ser Pro Gln Ser Ser Ser Ser Gly Thr Asp Leu Thr Gly Asp Lys Gly 1250 1255 1260 Arg Gly His Leu His Arg Ser Leu Val Val Arg Arg Pro 1270 1275 1277

<210> 2155 <211> 711 <212> PRT <213> Homo sapiens

<400> 2155 Phe Gly Arg Leu Leu Trp Gly Thr Ala Phe Lys Ser Trp Lys Met Lys 10 Ala Pro Ile Pro His Leu Ile Leu Leu Tyr Ala Thr Phe Thr Gln Ser 25 Leu Lys Val Val Thr Lys Arg Gly Ser Ala Asp Gly Cys Thr Asp Trp 40 35 Ser Ile Asp Ile Lys Lys Tyr Gln Val Leu Val Gly Glu Pro Val Arg 50 . 55 Ile Lys Cys Ala Leu Phe Tyr Gly Tyr Ile Arg Thr Asn Tyr Ser Leu 70 75 Ala Gln Ser Ala Gly Leu Ser Leu Met Trp Tyr Lys Ser Ser Gly Pro 90 85 Gly Asp Phe Glu Glu Pro Ile Ala Phe Asp Gly Ser Arg Met Ser Lys 105 100 Glu Glu Asp Ser Ile Trp Phe Arg Pro Thr Leu Leu Gln Asp Ser Gly 115 120 125 Leu Tyr Ala Cys Val Ile Arg Asn Ser Thr Tyr Cys Met Lys Val Ser 130 135 140 Ile Ser Leu Thr Val Gly Glu Asn Asp Thr Gly Leu Cys Tyr Asn Ser 150 155 Lys Met Lys Tyr Phe Glu Lys Ala Glu Leu Ser Lys Ser Lys Glu Ile 170 165 Ser Cys Arg Asp Ile Glu Asp Phe Leu Leu Pro Thr Arg Glu Pro Glu 185 190 180 Ile Leu Trp Tyr Lys Glu Cys Arg Thr Lys Thr Trp Arg Pro Ser Ile 195 200 205 Val Phe Lys Arg Asp Thr Leu Leu Ile Arg Glu Val Arg Glu Asp Asp 215 220 Ile Gly Asn Tyr Thr Cys Glu Leu Lys Tyr Gly Gly Phe Val Val Arg 230 235 Arg Thr Thr Glu Leu Thr Val Thr Ala Pro Leu Thr Asp Lys Pro Pro 255 250 245 Lys Leu Leu Tyr Pro Met Glu Ser Lys Leu Thr Ile Gln Glu Thr Gln 265 260 Leu Gly Asp Ser Ala Asn Leu Thr Cys Arg Ala Phe Phe Gly Tyr Ser 275 280 285 Gly Asp Val Ser Pro Leu Ile Tyr Trp Met Lys Gly Glu Lys Phe Ile 290 295 300 290 295 Glu Asp Leu Asp Glu Asn Arg Val Trp Glu Ser Asp Ile Lys Ile Leu 315 310 Lys Glu His Leu Gly Glu Gln Glu Val Ser Ile Ser Leu Ile Val Asp 330 Ser Val Glu Glu Gly Asp Leu Gly Asn Tyr Ser Cys Tyr Val Glu Asn 345 350 340 Gly Asn Gly Arg Arg His Ala Ser Val Leu Leu His Lys Arg Glu Leu 360 355 Met Tyr Thr Val Glu Leu Ala Gly Gly Leu Gly Ala Ile Leu Leu Leu 370 380 375 Leu Val Cys Leu Val Thr Ile Tyr Lys Cys Tyr Lys Ile Glu Ile Met 385 390 395 400 Leu Phe Tyr Arg Asn His Phe Gly Ala Glu Glu Leu Asp Gly Asp Asn 410 405 Lys Asp Tyr Asp Ala Tyr Leu Ser Tyr Thr Lys Val Asp Pro Asp Gln 425

Trp Asn Gln Glu Thr Gly Glu Glu Arg Phe Ala Leu Glu Ile Leu 440 Pro Asp Met Leu Glu Lys His Tyr Gly Tyr Lys Leu Phe Ile Pro Asp 455 460 Arg Asp Leu Ile Pro Thr Gly Thr Tyr Ile Glu Asp Val Ala Arg Cys 470 475 Val Asp Gln Ser Lys Arg Leu Ile Ile Val Met Thr Pro Asn Tyr Val 490 Val Arg Arg Gly Trp Ser Ile Phe Glu Leu Glu Thr Arg Leu Arg Asn 500 505 510 Met Leu Val Thr Gly Glu Ile Lys Val Ile Leu Ile Glu Cys Ser Glu 520 525 Leu Arg Gly Ile Met Asn Tyr Gln Glu Val Glu Ala Leu Lys His Thr 535 540 Ile Lys Leu Leu Thr Val Ile Lys Trp His Gly Pro Lys Cys Asn Lys 555 550 Leu Asn Ser Lys Phe Trp Lys Arg Leu Gln Tyr Glu Met Pro Phe Lys 565 570 Arg Ile Glu Pro Ile Thr His Glu Gln Ala Leu Asp Val Ser Glu Gln 585 590 Gly Pro Phe Gly Glu Leu Gln Thr Val Ser Ala Ile Ser Met Ala Ala 600 605 Ala Thr Ser Thr Ala Leu Ala Thr Ala His Pro Asp Leu Arg Ser Thr 615 . 620 Phe His Asn Thr Tyr His Ser Gln Met Arg Gln Lys His Tyr Tyr Arg 630 635 Ser Tyr Glu Tyr Asp Val Pro Pro Thr Gly Thr Leu Pro Leu Thr Ser 645 650 655 Ile Gly Asn Gln His Thr Tyr Cys Asn Ile Pro Met Thr Leu Ile Asn 660 665 Gly Gln Arg Pro Gln Thr Lys Ser Ser Arg Glu Gln Asn Pro Asp Glu 675 680 Ala His Thr Asn Ser Ala Ile Leu Pro Leu Leu Pro Arg Glu Thr Ser Ile Ser Ser Val Ile Trp

<210> 2156 <211> 530 <212> PRT

<213> Homo sapiens

<400> 2156 Asn Ser Ala Arg Gly Gly Val Gly Val Arg Gly Ala Arg Ala Met Ala 10 Thr Val Gln Glu Lys Ala Ala Ala Leu Asn Leu Ser Ala Leu His Ser 20 25 Pro Ala His Arg Pro Pro Gly Phe Ser Val Ala Gln Lys Pro Phe Gly 35 40 Ala Thr Tyr Val Trp Ser Ser Ile Ile Asn Thr Leu Gln Thr Gln Val 55 60 Glu Val Lys Lys Arg Arg His Arg Leu Lys Arg His Asn Asp Cys Phe 70 75 Val Gly Ser Glu Ala Val Asp Val Ile Phe Ser His Leu Ile Gln Asn 85 90 Lys Tyr Phe Gly Asp Val Asp Ile Pro Arg Ala Lys Val Val Arg Val 100 105 110 Cys Gln Ala Leu Met Asp Tyr Lys Val Phe Glu Ala Val Pro Thr Lys 125 120 Val Phe Gly Lys Asp Lys Lys Pro Thr Phe Glu Asp Ser Ser Cys Ser 135

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Leu Tyr Arg Phe Thr Thr Ile Pro Asn Gln Asp Ser Gln Leu Gly Lys
                                 155
                 150
Glu Asn Lys Leu Tyr Ser Pro Ala Arg Tyr Ala Asp Ala Leu Phe Lys
                              170
             165
Ser Ser Asp Ile Arg Ser Ala Ser Leu Glu Asp Leu Trp Glu Asn Leu
                  185
          180
Ser Leu Lys Pro Ala Asn Ser Pro His Val Asn Ile Ser Thr Thr Leu
                                          205
                       200
     195
Ser Pro Gln Val Ile Asn Glu Val Trp Gln Glu Glu Thr Ile Gly Arg
                                      220
                    215
Leu Leu Gln Leu Val Asp Leu Pro Leu Leu Asp Ser Leu Leu Lys Gln
                          235
                 230
Gln Glu Ala Val Pro Lys Ile Pro Gln Pro Lys Arg Gln Ser Thr Met
                      250
             245
Val Asn Ser Ser Asn Tyr Leu Asp Arg Gly Ile Leu Lys Ala Tyr Ser
         260 265
                                            270
Asp Ser Gln Glu Asp Glu Trp Leu Ser Ala Ala Ile Asp Cys Leu Glu
                280
Tyr Leu Pro Asp Gln Met Val Val Glu Ile Ser Arg Ser Phe Pro Glu
                              300
                    295
Gln Pro Asp Arg Thr Asp Leu Val Lys Glu Leu Leu Phe Asp Ala Ile
                 310
                                  315
Gly Arg Tyr Tyr Ser Ser Arg Glu Pro Leu Leu Asn His Leu Ser Asp
                       330
             325
Val His Asn Gly Ile Ala Glu Leu Leu Val Asn Gly Lys Thr Glu Ile
                    345
                                            350
          340
Ala Leu Glu Ala Thr Gln Leu Leu Leu Lys Leu Leu Asp Phe Gln Asn
               360
Arg Glu Glu Phe Arg Arg Leu Leu Tyr Phe Met Ala Val Ala Ala Asn
                               380
                    375
Pro Ser Glu Phe Lys Leu Gln Lys Glu Ser Asp Asn Arg Met Val Val
                                   395
                 390
Lys Arg Ile Phe Ser Lys Ala Ile Val Asp Asn Lys Asn Leu Ser Lys
405
410
415
                               410
              405
Gly Lys Thr Asp Leu Leu Val Leu Phe Leu Met Asp His Gln Lys Asp
                                           430
                            425
        420
Val Phe Lys Ile Pro Gly Thr Leu His Lys Ile Val Ser Val Lys Leu
                      440
Met Ala Ile Gln Asn Gly Arg Asp Pro Asn Arg Asp Ala Gly Tyr Ile
                    455
                                       460
Tyr Cys Gln Arg Ile Asp Gln Arg Asp Tyr Ser Asn Ile Thr Glu Lys
                                  475
                  470
Thr Thr Ile Asp Glu Leu Leu Tyr Leu Leu Lys Thr Leu Asp Glu Asp
                               490
              485
Ser Lys Leu Ser Ala Lys Glu Lys Lys Lys Leu Leu Gly Gln Phe Tyr
          500
                           505
Lys Cys His Pro Asp Ile Phe Ile Glu His Phe Gly Asp
       515
                        520
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<210> 2157 <211> 706 <212> PRT <213> Homo sapiens

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Gln His Gln Asp Lys Val Pro Cys Lys Met Val Lys Met Leu Cys Pro
                       55
Asp Arg Val Asp Lys Lys Val Ser Cys Gln Val Leu Gly Leu Leu Gln
Val Pro Ser Val Leu Pro Pro Asp Thr Glu Thr Leu Asp Leu Ser Gly
               85
                               90
Asn Gln Leu Arg Ser Ile Leu Ala Ser Pro Leu Gly Phe Tyr Thr Ala
           100
                              105
Leu Arg His Leu Asp Leu Ser Thr Asn Glu Ile Ser Phe Leu Gln Pro
                         120
                                            125
Gly Ala Phe Gln Ala Leu Thr His Leu Glu His Leu Ser Leu Ala His
                      135
                                         140
Asn Arg Leu Ala Met Ala Thr Ala Leu Ser Ala Gly Gly Leu Gly Pro
                  150
                                      155
Leu Pro Arg Val Thr Ser Leu Asp Leu Ser Gly Asn Ser Leu Tyr Ser
              165
                                 170
                                           175
Gly Leu Leu Glu Arg Leu Leu Gly Glu Ala Pro Ser Leu His Thr Leu
          180
                              185
                                         190
Ser Leu Ala Glu Asn Ser Leu Thr Arg Leu Thr Arg His Thr Phe Arg
                           200
                                             205
Asp Met Pro Ala Leu Glu Gln Leu Asp Leu His Ser Asn Val Leu Met
                     215
                                        220
Asp Ile Glu Asp Gly Ala Phe Glu Gly Leu Pro Arg Leu Thr His Leu
                  230
                                     235
Asn Leu Ser Arg Asn Ser Leu Thr Cys Ile Ser Asp Phe Ser Leu Gln
              245
                                 250
Gln Leu Arg Val Leu Asp Leu Ser Cys Asn Ser Ile Glu Ala Phe Gln
                             265
Thr Ala Ser Gln Pro Gln Ala Glu Phe Gln Leu Thr Trp Leu Asp Leu
       275
                          280
                                            285
Arg Glu Asn Lys Leu Leu His Phe Pro Asp Leu Ala Ala Leu Pro Arg
                                          300
                      295
Leu Ile Tyr Leu Asn Leu Ser Asn Asn Leu Ile Arg Leu Pro Thr Gly
                  310
                                     315
Pro Pro Gln Asp Ser Lys Gly Ile His Ala Pro Ser Glu Gly Trp Ser
               325
                                  330
                                                     335
Ala Leu Pro Leu Ser Ala Pro Ser Gly Asn Ala Ser Gly Arg Pro Leu
                    ` 345
          340
                                                 350
Ser Gln Leu Leu Asn Leu Asp Leu Ser Tyr Asn Glu Ile Glu Leu Ile
       355
                         360
Pro Asp Ser Phe Leu Glu His Leu Thr Ser Leu Cys Phe Leu Asn Leu
   370
                      375
                                        380
Ser Arg Asn Cys Leu Arg Thr Phe Glu Ala Arg Arg Leu Gly Ser Leu
                 390
                                    395
Pro Cys Leu Met Leu Leu Asp Leu Ser His Asn Ala Leu Glu Thr Leu
              405
                                 410
Glu Leu Gly Ala Arg Ala Leu Gly Ser Leu Arg Thr Leu Leu Leu Gln
           420
                              425
Gly Asn Ala Leu Arg Asp Leu Pro Pro Tyr Thr Phe Ala Asn Leu Ala
                          440
                                             445
Ser Leu Gln Arg Leu Asn Leu Gln Gly Asn Arg Val Ser Pro Cys Gly
                      455
                                         460
Gly Pro Asp Glu Pro Gly Pro Ser Gly Cys Val Ala Phe Ser Gly Ile
465
                  470
                                     475
Thr Ser Leu Arg Ser Leu Ser Leu Val Asp Asn Glu Ile Glu Leu Leu
               485
                                 490
Arg Ala Gly Ala Phe Leu His Thr Pro Leu Thr Glu Leu Asp Leu Ser
          500
                              505
                                                510
Ser Asn Pro Gly Leu Glu Val Ala Thr Gly Ala Leu Gly Gly Leu Glu
                          520
                                             525
Ala Ser Leu Glu Val Leu Ala Leu Gln Gly Asn Gly Leu Met Val Leu
                     535
                                        540
Gln Val Asp Leu Pro Cys Phe Ile Cys Leu Lys Arg Leu Asn Leu Ala
                                     555
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Glu Asn Arg Leu Ser His Leu Pro Ala Trp Thr Gln Ala Val Ser Leu Glu Val Leu Asp Leu Arg Asn Asn Ser Phe Ser Leu Leu Pro Gly Ser Ala Met Gly Gly Leu Glu Thr Ser Leu Arg Arg Leu Tyr Leu Gln Gly Asn Pro Leu Ser Cys Cys Gly Asn Gly Trp Leu Ala Ala Gln Leu His Gln Gly Arg Val Asp Val Asp Ala Thr Gln Asp Leu Ile Cys Arg Phe Ser Ser Gln Glu Glu Val Ser Leu Ser His Val Arg Pro Glu Asp Cys Glu Lys Gly Gly Leu Lys Asn Ile Asn Leu Ile Ile Leu Thr Phe Ile Leu Val Ser Ala Ile Leu Leu Thr Thr Leu Ala Ala Cys Cys Cys Val Arg Arg Gln Lys Phe Asn Gln Gln Tyr Lys Ala 

<210> 2158 <211> 571 <212> PRT <213> Homo sapiens

<400> 2158 Phe Lys Ala Leu Ser Gln Tyr Ile Tyr Thr Asn Thr His Leu Glu Arg Glu Ala Ala Phe Glu Val Ala Ile Leu Leu Arg Arg Met Glu Glu Gly Ala Arg His Arg Asn Asn Thr Glu Lys Lys His Pro Gly Gly Glu Ser Asp Ala Ser Pro Glu Ala Gly Ser Gly Gly Gly Val Ala Leu Lys Lys Glu Ile Gly Leu Val Ser Ala Cys Gly Ile Ile Val Gly Asn Ile Ile Gly Ser Gly Ile Phe Val Ser Pro Lys Gly Val Leu Glu Asn Ala Gly Ser Val Gly Leu Ala Leu Ile Val Trp Ile Val Thr Gly Phe Ile Thr Val Val Gly Ala Leu Cys Tyr Ala Glu Leu Gly Val Asn Ile Pro Lys Ser Gly Gly Asp Tyr Phe Tyr Val Lys Asp Ile Phe Gly Gly Leu Ala Gly Phe Leu Arg Leu Trp Ile Ala Val Leu Val Ile Tyr Pro Thr Asn Gln Ala Val Ile Ala Leu Thr Phe Ser Asn Tyr Val Leu Gln Pro Leu Phe Pro Thr Cys Phe Pro Pro Glu Ser Gly Leu Arg Leu Leu Ala Ala Ile Cys Leu Leu Leu Thr Trp Val Asn Cys Ser Ser Val Arg Trp Ala Thr Arg Val Gln Asp Ile Phe Thr Ala Gly Lys Leu Leu 210 215 220 Ala Leu Ala Leu Ile Ile Ile Met Gly Ile Val Gln Ile Cys Lys Gly Glu Tyr Phe Trp Leu Glu Pro Lys Asn Ala Phe Glu Asn Phe Gln Glu 245 250 Pro Asp Ile Gly Leu Val Ala Leu Ala Phe Leu Gln Gly Ser Phe Ala Tyr Gly Gly Trp Asn Phe Leu Asn Tyr Val Thr Glu Glu Leu Val Asp 

Pro Tyr Lys Asn Leu Pro Arg Ala Ile Phe Ile Ser Ile Pro Leu Val 290 295 Thr Phe Val Tyr Val Phe Ala Asn Val Ala Leu Tyr Val Thr Ala Met 310 315 Ser Pro Gln Glu Leu Leu Ala Ser Asn Ala Val Ala Val Thr Phe Gly 325 330 Glu Lys Leu Leu Gly Val Met Ala Trp Ile Met Pro Ile Ser Val Ala 345 Leu Ser Thr Phe Gly Gly Val Asn Gly Ser Leu Phe Thr Ser Ser Arg 360 365 Leu Phe Phe Ala Gly Ala Arg Glu Gly His Leu Pro Ser Val Leu Ala 375 380 Met Ile His Val Lys Arg Cys Thr Pro Ile Pro Ala Leu Leu Phe Thr 390 395 Cys Ile Ser Thr Leu Leu Met Leu Val Thr Ser Asp Met Tyr Thr Leu 405 410 Ile Asn Tyr Val Gly Phe Ile Asn Tyr Leu Phe Tyr Gly Val Thr Val 420 425 430 Ala Gly Gln Ile Val Leu Arg Trp Lys Lys Pro Asp Ile Pro Arg Pro 440 445 Ile Lys Ile Asn Leu Leu Phe Pro Ile Ile Tyr Leu Leu Phe Trp Ala 450 455 460 Phe Leu Leu Val Phe Ser Leu Trp Ser Glu Pro Val Val Cys Gly Ile 470 475 Gly Leu Ala Ile Met Leu Thr Gly Val Pro Val Tyr Phe Leu Gly Val 485 490 495 Tyr Trp Gln His Lys Pro Lys Cys Phe Ser Asp Phe Ile Glu Leu Leu 510 500 505 Thr Leu Val Ser Gln Lys Met Cys Val Val Val Tyr Pro Glu Val Glu 515 520 Arg Gly Ser Gly Thr Glu Glu Ala Asn Glu Asp Met Glu Glu Gln Gln 530 535 Gln Pro Met Tyr Gln Pro Thr Pro Thr Lys Asp Lys Asp Val Ala Gly 555 Gln Pro Gln Pro 564

<210> 2159 <211> 272 <212> PRT <213> Homo sapiens

<400> 2159 Gln Asp Ser Arg Lys Met Leu Pro Ser Thr Ser Val Asn Ser Leu Val 10 Gln Gly Asn Gly Val Leu Asn Ser Arg Asp Ala Ala Arg His Thr Ala 25 Gly Ala Lys Arg Tyr Lys Tyr Leu Arg Arg Leu Phe Arg Phe Arg Gln 35 40 Met Asp Phe Glu Phe Ala Ala Trp Gln Met Leu Tyr Leu Phe Thr Ser 55 60 Pro Gln Arg Val Tyr Arg Asn Phe His Tyr Arg Lys Gln Thr Lys Asp 70 75 Gln Trp Ala Arg Asp Asp Pro Ala Phe Leu Val Leu Leu Ser Ile Trp 85 Leu Cys Val Ser Thr Ile Gly Phe Gly Phe Val Leu Asp Met Gly Phe 100 105 110 Phe Glu Thr Ile Lys Leu Leu Leu Trp Val Val Leu Ile Asp Cys Val 120 125 Gly Val Gly Leu Leu Ile Ala Thr Leu Met Trp Phe Ile Ser Asn Lys 135

Tyr Leu Val Lys Arg Gln Ser Arg Asp Tyr Asp Val Glu Trp Gly Tyr 155 150 Ala Phe Asp Val His Leu Asn Ala Phe Tyr Pro Leu Leu Val Ile Leu 165 170 His Phe Ile Gln Leu Phe Phe Ile Asn His Val Ile Leu Thr Asp Thr 180 185 190 Phe Ile Gly Tyr Leu Val Gly Asn Thr Leu Trp Leu Val Ala Val Gly 200 205 195 Tyr Tyr Ile Tyr Val Thr Phe Leu Gly Tyr Ser Val Gly Leu Leu Phe 210 215 220 Phe Ser Ala Leu Pro Phe Leu Lys Asn Thr Val Ile Leu Leu Tyr Pro 230 235 Phe Ala Pro Leu Ile Leu Leu Tyr Gly Leu Ser Leu Ala Leu Gly Trp 245 250 255 Asn Phe Thr His Thr Leu Cys Ser Phe Tyr Lys Tyr Arg Val Lys 265

<210> 2160 <211> 223 <212> PRT <213> Homo sapiens

<400> 2160 Ser Pro Ala Ser Gly His Cys Arg Leu Asn Gly Ala Ala Val Ala Met 10 Phe Gly Cys Leu Val Ala Gly Arg Leu Val Gln Thr Ala Ala Gln Gln 25 20 Val Ala Glu Asp Lys Phe Val Phe Asp Leu Pro Asp Tyr Glu Ser Ile 40 Asn His Val Val Val Phe Met Leu Gly Thr Ile Pro Phe Pro Glu Gly 55 60 Met Gly Gly Ser Val Tyr Phe Ser Tyr Pro Asp Ser Asn Gly Met Pro 65 70 75 80 Val Trp Gln Leu Leu Gly Phe Val Thr Asn Gly Lys Pro Ser Ala Ile 90 85 Phe Lys Ile Ser Gly Leu Lys Ser Gly Glu Gly Ser Gln His Pro Phe 110 105 100 Gly Ala Met Asn Ile Val Arg Thr Pro Ser Val Ala Gln Ile Gly Ile 120 115 Ser Val Glu Leu Leu Asp Ser Met Ala Gln Gln Thr Pro Val Gly Asn 135 140 130 Ala Ala Val Ser Ser Val Asp Ser Phe Thr Gln Phe Thr Gln Lys Met 150 155 Leu Asp Asn Phe Tyr Asn Phe Ala Ser Ser Phe Ala Val Ser Gln Val 165 170 175 Pro Asp Asp Thr Gln Arg Pro Ser Glu Met Phe Ile Pro Ala Asn Val 190 185 180 Val Leu Lys Trp Tyr Glu Asn Phe Gln Arg Arg Thr Ser Thr Glu Pro 200 205 Ser Leu Leu Glu Asn Ile Ile Trp Ile Lys Ile Asn Phe 215

<210> 2161 <211> 1118 <212> PRT <213> Homo sapiens

<400> 2161

Leu Glu Gly Ser Leu Asn Thr Glu Arg Ala Lys Tyr Tyr Leu Thr Ile Thr Met Pro His Phe Thr Val Thr Lys Val Glu Asp Pro Glu Glu Gly Ala Ala Ala Ser Ile Ser Gln Glu Pro Ser Leu Ala Asp Ile Lys Ala Arg Ile Gln Asp Ser Asp Glu Pro Asp Leu Ser Gln Asn Ser Ile Thr Gly Glu His Ser Gln Leu Leu Asp Asp Gly His Lys Lys Ala Arg Asn Ala Tyr Leu Asn Asn Ser Asn Tyr Glu Glu Gly Asp Glu Tyr Phe Asp Lys Asn Leu Ala Leu Phe Glu Glu Glu Met Asp Thr Arg Pro Lys Val Ser Ser Leu Leu Asn Arg Met Ala Asn Tyr Thr Asn Leu Thr Gln Gly Ala Lys Glu His Glu Glu Ala Glu Asn Ile Thr Glu Gly Lys Lys Pro Thr Lys Thr Pro Gln Met Gly Thr Phe Met Gly Val Tyr Leu Pro Cys Leu Gln Asn Ile Phe Gly Val Ile Leu Phe Leu Arg Leu Thr Trp Val Val Gly Thr Ala Gly Val Leu Gln Ala Phe Ala Ile Val Leu Ile Cys Cys Cys Cys Thr Met Leu Thr Ala Ile Ser Met Ser Ala Ile Ala Thr Asn Gly Val Val Pro Ala Gly Gly Ser Tyr Phe Met Ile Ser Arg Ala Leu Gly Pro Glu Phe Gly Gly Ala Val Gly Leu Cys Phe Tyr Leu Gly Thr Thr Phe Ala Ala Ala Met Tyr Ile Leu Gly Ala Ile Glu Ile Phe Leu Val Tyr Ile Val Pro Arg Ala Ala Ile Phe His Ser Asp Asp Ala Leu Lys Glu Ser Ala Ala Met Leu Asn Asn Met Arg Val Tyr Gly Thr Ala Phe Leu Val Leu Met Val Leu Val Val Phe Ile Gly Val Arg Tyr Val Asn Lys Phe Ala Ser Leu Phe Leu Ala Cys Val Ile Val Ser 310 315 Ile Leu Ala Ile Tyr Ala Gly Ala Ile Lys Ser Ser Phe Ala Pro Pro His Phe Pro Val Cys Met Leu Gly Asn Arg Thr Leu Ser Ser Arg His 345 350 Ile Asp Val Cys Ser Lys Thr Lys Glu Ile Asn Asn Met Thr Val Pro Ser Lys Leu Trp Gly Phe Phe Cys Asn Ser Ser Gln Phe Phe Asn Ala Thr Cys Asp Glu Tyr Phe Val His Asn Asn Val Thr Ser Ile Gln Gly Ile Pro Gly Leu Ala Ser Gly Ile Ile Thr Glu Asn Leu Trp Ser Asn Tyr Leu Pro Lys Gly Glu Ile Ile Glu Lys Pro Ser Ala Lys Ser Ser Asp Val Leu Gly Ser Leu Asn His Glu Tyr Val Leu Val Asp Ile Thr Thr Ser Phe Thr Leu Leu Val Gly Ile Phe Phe Pro Ser Val Thr Gly Ile Met Ala Gly Ser Asn Arg Ser Gly Asp Leu Lys Asp Ala Gln Lys Ser Ile Pro Ile Gly Thr Ile Leu Ala Ile Leu Thr Thr Ser Phe Val Tyr Leu Ser Asn Val Val Leu Phe Gly Ala Cys Ile Glu Gly Val Val 

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Leu Arg Asp Lys Phe Gly Asp Ala Val Lys Gly Asn Leu Val Val Gly
                        520
      515
Thr Leu Ser Trp Pro Ser Pro Trp Val Ile Val Ile Gly Ser Phe Phe
                 535
                                    540
Ser Thr Cys Gly Ala Gly Leu Gln Ser Leu Thr Gly Ala Pro Arg Leu
                 550
                          555
Leu Gln Ala Ile Ala Lys Asp Asn Ile Ile Pro Phe Leu Arg Val Phe
                              570
             565
Gly His Ser Lys Ala Asn Gly Glu Pro Thr Trp Ala Leu Leu Leu Thr
                           585
          580
Ala Ala Ile Ala Glu Leu Gly Ile Leu Ile Ala Ser Leu Asp Leu Val
                                        605
                        600
Ala Pro Ile Leu Ser Met Phe Phe Leu Met Cys Tyr Leu Phe Val Asn
                    615 620
Leu Ala Cys Ala Leu Gln Thr Leu Leu Arg Thr Pro Asn Trp Arg Pro
                                   635
         630
Arg Phe Arg Tyr Tyr His Trp Ala Leu Ser Phe Met Gly Met Ser Ile
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             645
Cys Leu Ala Leu Met Phe Ile Ser Ser Trp Tyr Tyr Ala Ile Val Ala
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                           665
         660
Met Val Ile Ala Gly Met Ile Tyr Lys Tyr Ile Glu Tyr Gln Gly Ala
                        6B0
                                   685
     675
Glu Lys Glu Trp Gly Asp Gly Ile Arg Gly Leu Ser Leu Ser Ala Ala
             695
                                  700
Arg Phe Ala Leu Leu Arg Leu Glu Glu Gly Pro Pro Ris Thr Lys Asn
                         715
          710
Trp Arg Pro Gln Leu Leu Val Leu Leu Lys Leu Asp Glu Asp Leu His
             725 730
Val Lys His Pro Arg Leu Leu Thr Phe Ala Ser Gln Leu Lys Ala Gly
                                    750
                           745
Lys Gly Leu Thr Ile Val Gly Ser Val Ile Val Gly Asn Phe Leu Glu
                                           765
       755
                  . 760
Asn Tyr Gly Glu Ala Leu Ala Ala Glu Gln Thr Ile Lys His Leu Met
          775
Glu Ala Glu Lys Val Lys Gly Phe Cys Gln Leu Val Val Ala Ala Lys 785 790 795 800
Leu Arg Glu Gly Ile Ser His Leu Ile Gln Ser Cys Gly Leu Gly Gly
                      810
              805
Met Lys His Asn Thr Val Val Met Gly Trp Pro Asn Gly Trp Arg Gln
                                             830
                            825
Ser Glu Asp Ala Arg Ala Trp Lys Thr Phe Ile Gly Thr Val Arg Val
                                          845
      835
                         840
Thr Thr Ala Ala His Leu Ala Leu Leu Val Ala Lys Asn Ile Ser Phe
                                      860
                  855
Phe Pro Ser Asn Val Glu Gln Phe Ser Glu Gly Asn Ile Asp Val Trp
                870 875
Trp Ile Val His Asp Gly Gly Met Leu Met Leu Leu Pro Phe Leu Leu
                               890
Lys Gln His Lys Val Trp Arg Lys Cys Ser Ile Arg Phe Phe Thr Val
                                             910
          900
                            905
Ala Gln Leu Glu Asp Asn Ser Ile Gln Met Lys Lys Asp Leu Ala Thr
                                          925
                        920
       915
Phe Leu Tyr His Leu Arg Ile Glu Ala Glu Val Glu Val Glu Met
                                     940
                     935
His Asp Ser Asp Ile Ser Ala Tyr Thr Tyr Glu Arg Thr Leu Met Met 945 950 955 960
Glu Gln Arg Ser Gln Met Leu Arg His Met Arg Leu Ser Lys Thr Glu
                                970
             965
Arg Asp Arg Glu Ala Gln Leu Val Lys Asp Arg Asn Ser Met Leu Arg
                            985
           980
Leu Thr Ser Ile Gly Ser Asp Glu Asp Glu Glu Thr Glu Thr Tyr Gln
                       1000 1005
Glu Lys Val His Met Thr Trp Thr Lys Asp Lys Tyr Met Ala Ser Arg
                    1015
                                      1020
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Gly Gln Lys Ala Lys Ser Met Glu Gly Phe Gln Asp Leu Leu Asn Met

1025 1030 1035 1040

Arg Pro Asp Gln Ser Asn Val Arg Arg Met His Thr Ala Val Lys Leu

1045 1050 1055

Asn Glu Val Ile Val Asn Lys Ser His Glu Ala Lys Leu Val Leu Leu

1060 1065 1070

Asn Met Pro Gly Pro Pro Arg Asn Pro Glu Gly Asp Glu Asn Tyr Met

1075 1080 1085

Glu Phe Leu Glu Val Leu Thr Glu Gly Leu Glu Arg Val Leu Leu Val

1090 1095 1100

Arg Gly Gly Gly Ser Glu Val Ile Thr Ile Tyr Ser

1105 1110 11151116

<210> 2162 <211> 192 <212> PRT <213> Homo sapiens

<400> 2162 Ala Val Cys Thr Met Ser Glu Met Ala Glu Leu Ser Glu Leu Tyr Glu 10 Glu Ser Ser Asp Leu Gln Met Asp Val Met Pro Gly Glu Gly Asp Leu 25 Pro Gln Met Glu Val Gly Ser Gly Ser Arg Glu Leu Ser Leu Arg Pro 40 Ser Arg Ser Gly Ala Gln Gln Leu Glu Glu Glu Gly Pro Met Glu Glu 50 . 55 60 Glu Glu Ala Gln Pro Met Ala Ala Pro Glu Gly Lys Arg Ser Leu Ala 70 Asn Gly Pro Asn Ala Gly Glu Gln Pro Gly Gln Val Ala Gly Ala Asp 90 Phe Glu Ser Glu Asp Glu Gly Glu Glu Phe Asp Asp Trp Glu Asp Asp 100 105 110 Tyr Asp Tyr Pro Glu Glu Glu Gln Leu Ser Gly Ala Gly Tyr Arg Val 115 120 125 Ser Ala Ala Leu Glu Glu Ala Asp Lys Met Phe Leu Arg Thr Arg Glu 130 135 140 Pro Ala Leu Asp Gly Gly Phe Gln Met His Tyr Glu Lys Thr Pro Phe 150 155 160 Asp Gln Leu Ala Phe Ile Glu Glu Leu Phe Ser Leu Met Val Val Asn 165 170 175 Arg Leu Thr Glu Glu Leu Gly Cys Asp Glu Ile Ile Asp Arg Glu 180 185

<210> 2163 <211> 217 <212> PRT <213> Homo sapiens

Tyr Ile Cly Phe Val Phe Ala Val Ile Tyr Arg Ile Arg Val Arg Arg 65 70 75 80
Gly Gly Arg Lys Arg Pro Val Pro Lys Gly Ala Thr Tyr Gly Lys Pro 90 85 Val His His Gly Val Asn Gln Leu Lys Phe Ala Arg Ser Leu Gln Ser 105 100 Val Ala Glu Glu Arg Ala Gly Arg His Cys Gly Ala Leu Arg Val Leu 125 120 Asn Ser Tyr Trp Val Gly Glu Asp Ser Thr Tyr Lys Phe Phe Glu Val 140 135 Ile Leu Ile Asp Pro Phe His Lys Ala Ile Arg Arg Asn Pro Asp Thr 150 155 Gln Trp Ile Thr Lys Pro Val His Lys His Arg Glu Met Arg Gly Leu 165 170 175 165 Thr Ser Ala Gly Arg Lys Ser Arg Gly Leu Gly Lys Gly His Lys Phe 185 180 His His Thr Ile Gly Gly Ser Arg Arg Ala Ala Trp Arg Arg Asn 200 Thr Leu Gln Leu His Arg Tyr Arg

<210> 2164 <211> 502 <212> PRT <213> Homo sapiens

<400> 2164 Lys Gly Thr Glu Met Asn Lys Ser Arg Trp Gln Ser Arg Arg His 10 Gly Arg Arg Ser His Gln Gln Asn Pro Trp Phe Arg Leu Arg Asp Ser 25 Glu Asp Arg Ser Asp Ser Arg Ala Ala Gln Pro Ala His Asp Ser Gly 40 His Gly Asp Asp Glu Ser Pro Ser Thr Ser Ser Gly Thr Ala Gly Thr 55 Ser Ser Val Pro Glu Leu Pro Gly Phe Tyr Phe Asp Pro Glu Lys Lys 70 Arg Tyr Phe Arg Leu Leu Pro Gly His Asn Asn Cys Asn Pro Leu Thr 90 85 Lys Glu Ser Ile Arg Gln Lys Glu Met Glu Ser Lys Arg Leu Arg Leu 110 100 105 Leu Gln Glu Glu Asp Arg Arg Lys Lys Ile Ala Arg Met Gly Phe Asn 115 120 125 120 115 Ala Ser Ser Met Leu Arg Lys Ser Gln Leu Gly Phe Leu Asn Val Thr 135 140 Asn Tyr Cys His Leu Ala His Glu Leu Arg Leu Ser Cys Met Glu Arg 150 155 Lys Lys Val Gln Ile Arg Ser Met Asp Pro Ser Ala Leu Ala Ser Asp 170 175 Arg Phe Asn Leu Ile Leu Ala Asp Thr Asn Ser Asp Arg Leu Phe Thr 190 180 185 Val Asn Asp Val Thr Val Gly Gly Ser Lys Tyr Gly Ile Ile Asn Leu 205 200 195 Gln Ser Leu Lys Thr Pro Thr Leu Lys Val Phe Met His Glu Asn Leu 220 215 Tyr Phe Thr Asn Arg Lys Val Asn Ser Val Cys Trp Ala Ser Leu Asn 225 230 235 240 His Leu Asp Ser His Ile Leu Leu Cys Leu Met Gly Leu Ala Glu Thr 250 245 Pro Gly Cys Ala Thr Leu Leu Pro Ala Ser Leu Phe Val Asn Ser His 260 265

Pro Ala Gly Ile Asp Arg Pro Gly Met Leu Cys Ser Phe Arg Ile Pro 280 275 Gly Ala Trp Ser Cys Ala Trp Ser Leu Asn Ile Gln Ala Asn Asn Cys 295 Phe Ser Thr Gly Leu Ser Arg Arg Val Leu Leu Thr Asn Val Val Thr 310 . 315 Gly His Arg Gln Ser Phe Gly Thr Asn Ser Asp Val Leu Ala Gln Gln 325 330 Phe Ala Leu Met Ala Pro Leu Leu Phe Asn Gly Cys Arg Ser Gly Glu 345 Ile Phe Ala Ile Asp Leu Arg Cys Gly Asn Gln Gly Lys Gly Trp Lys 360 365 Ala Thr Arg Leu Phe His Asp Ser Ala Val Thr Ser Val Arg Ile Leu 375 380 Gln Asp Glu Gln Tyr Leu Met Ala Ser Asp Met Ala Gly Lys Ile Lys 390 395 Leu Trp Asp Leu Arg Thr Thr Lys Cys Val Arg Gln Tyr Glu Gly His 405 410 Val Asn Glu Tyr Ala Tyr Leu Pro Leu His Val His Glu Glu Glu Gly 425 Ile Leu Val Ala Val Gly Gln Asp Cys Tyr Thr Arg Ile Trp Ser Leu 440 His Asp Ala Arg Leu Leu Arg Thr Ile Pro Ser Pro Tyr Pro Ala Ser 455 460 Lys Ala Asp Ile Pro Ser Val Ala Phe Ser Ser Arg Leu Gly Gly Ser 470 475 Arg Gly Ala Pro Gly Leu Leu Met Ala Val Gly Gln Asp Leu Tyr Cys 490 Tyr Ser Tyr Ser 500

<210> 2165 <211> 874 <212> PRT <213> Homo sapiens

<400> 2165 Asn Lys Asn Ile Leu Glu Val Pro Ser Ala Arg Thr Thr Arg Ile Met 10 Gly Asp His Leu Asp Leu Leu Gly Val Val Leu Met Ala Gly Pro 20 25 Val Phe Gly Ile Pro Ser Cys Ser Phe Asp Gly Arg Ile Ala Phe Tyr 40 Arg Phe Cys Asn Leu Thr Gln Val Pro Gln Val Leu Asn Thr Thr Glu Arg Leu Leu Ser Phe Asn Tyr Ile Arg Thr Val Thr Ala Ser Ser 70 75 Phe Pro Phe Leu Glu Gln Leu Gln Leu Glu Leu Gly Ser Gln Tyr 85 90 Thr Pro Leu Thr Ile Asp Lys Glu Ala Phe Arg Asn Leu Pro Asn Leu 105 Arg Ile Leu Asp Leu Gly Ser Ser Lys Ile Tyr Phe Leu His Pro Asp 120 Ala Phe Gln Gly Leu Phe His Leu Phe Glu Leu Arg Leu Tyr Phe Cys 135 140 Gly Leu Ser Asp Ala Val Leu Lys Asp Gly Tyr Phe Arg Asn Leu Lys 150 155 Ala Leu Thr Arg Leu Asp Leu Ser Lys Asn Gln Ile Arg Ser Leu Tyr 165 170 Leu His Pro Ser Phe Gly Lys Leu Asn Ser Leu Lys Ser Ile Asp Phe 185

Ser Ser Asn Gln Ile Phe Leu Val Cys Glu His Glu Leu Glu Pro Leu Gln Gly Lys Thr Leu Ser Phe Phe Ser Leu Ala Ala Asn Ser Leu Tyr Ser Arg Val Ser Val Asp Trp Gly Lys Cys Met Asn Pro Phe Arg Asn Met Val Leu Glu Ile Leu Asp Val Ser Gly Asn Gly Trp Thr Val Asp Ile Thr Gly Asn Phe Ser Asn Ala Ile Ser Lys Ser Gln Ala Phe Ser Leu Ile Leu Ala His His Ile Met Gly Ala Gly Phe Gly Phe His Asn Ile Lys Asp Pro Asp Gln Asn Thr Phe Ala Gly Leu Ala Arg Ser Ser Val Arg His Leu Asp Leu Ser His Gly Phe Val Phe Ser Leu Asn Ser Arg Val Phe Glu Thr Leu Lys Asp Leu Lys Val Leu Asn Leu Ala Tyr Asn Lys Ile Asn Lys Ile Ala Asp Glu Ala Phe Tyr Gly Leu Asp Asn Leu Gln Val Leu Asn Leu Ser Tyr Asn Leu Leu Gly Glu Leu Tyr Ser Ser Asn Phe Tyr Gly Leu Pro Lys Val Ala Tyr Ile Asp Leu Gln Lys Asn His Ile Ala Ile Ile Gln Asp Gln Thr Phe Lys Phe Leu Glu Lys Leu Gln Thr Leu Asp Leu Arg Asp Asn Ala Leu Thr Thr Ile His Phe Ile Pro Ser Ile Pro Asp Ile Phe Leu Ser Gly Asn Lys Leu Val Thr Leu Pro Lys Ile Asn Leu Thr Ala Asn Leu Ile His Leu Ser Glu Asn Arg Leu Glu Asn Leu Asp Ile Leu Tyr Phe Leu Leu Arg Val Pro His Leu Gln Ile Leu Ile Leu Asn Gln Asn Arg Phe Ser Ser Cys Ser Gly Asp Gln Thr Pro Ser Glu Asn Pro Ser Leu Glu Gln Leu Phe Leu Gly Glu Asn Met Leu Gln Leu Ala Trp Glu Thr Glu Leu Cys Trp Asp Val Phe Glu Gly Leu Ser His Leu Gln Val Leu Tyr Leu Asn His Asn Tyr Leu Asn Ser Leu Pro Pro Gly Val Phe Ser His Leu Thr Ala Leu Arg Gly Leu Ser Leu Asn Ser Asn Arg Leu Thr Val Leu Ser His Asn Asp Leu Pro Ala Asn Leu Glu Ile Leu Asp Ile Ser Arg Asn Gln Leu Leu Ala Pro Asn Pro Asp Val Phe Val Ser Leu Ser Val Leu Asp Ile Thr His Asn Lys Phe Ile Cys Glu Cys Glu Leu Ser Thr Phe Ile Asn Trp Leu Asn His Thr Asn Val Thr Ile Ala Gly Pro Pro Ala Asp Ile Tyr Cys Val Tyr Pro Asp Ser Leu Ser Gly Val Ser Leu Phe Ser Leu Ser Thr Glu Gly Cys Asp Glu Glu Glu Val Leu Lys Ser Leu Lys Phe Ser Leu Phe Ile Val Cys Thr Val Thr Leu Thr Leu Phe Leu Met Thr Ile Leu Thr Val Thr Lys Phe Arg Gly Phe Cys Phe Ile Cys Tyr Lys Thr 6R5 Ala Gln Arg Leu Val Phe Lys Asp His Pro Gln Gly Thr Glu Pro Asp 

Met Tyr Lys Tyr Asp Ala Tyr Leu Cys Phe Ser Ser Lys Asp Phe Thr 710 715 Trp Val Gln Asn Ala Leu Leu Lys His Leu Asp Thr Gln Tyr Ser Asp 730 725 Gln Asn Arg Phe Asn Leu Cys Phe Glu Glu Arg Asp Phe Val Pro Gly 745 Glu Asn Arg Pro Ala Asn Ile Gln Asp Ala Ile Trp Asn Ser Arg Lys 760 Ile Val Cys Leu Val Ser Arg His Phe Leu Arg Asp Gly Trp Cys Leu 780 775 Glu Ala Phe Ser Tyr Ala Gln Gly Arg Cys Leu Ser Asp Leu Asn Ser 795 Ala Leu Ile Met Val Val Val Gly Ser Leu Ser Gln Tyr Gln Leu Met 810 805 Lys His Gln Ser Ile Arg Gly Phe Val Gln Lys Gln Gln Tyr Leu Arg 820 825 B30 Trp Pro Glu Asp Leu Gln Asp Val Gly Trp Phe Leu His Lys Leu Ser 835 . 840 Gln Gln Ile Leu Lys Lys Glu Lys Glu Lys Lys Lys Asp Asn Asn Ile 855 860 Pro Leu Gln Thr Val Ala Thr Ile Ser 870

<210> 2166 <211> 1272 <212> PRT <213> Homo sapiens

<400> 2166 Arg Asp Arg Ala Gly Val Arg Pro Ala Gly Lys Gln His Ala Ala Ala 10 Ala Phe Tyr Asp Val Gly Gly Asp Arg Pro Trp Asp Ser Gly Asn Thr 25 Gln Leu Pro Pro Arg Asn Pro Val Lys Ala Asn Ala Met Phe Gly Ala 40 Gly Asp Glu Asp Asp Thr Asp Phe Leu Ser Pro Ser Gly Gly Ala Arg . 55 60 Leu Ala Ser Leu Phe Gly Leu Asp Gln Ala Ala Ala Gly His Gly Asn 70 75 Glu Phe Phe Gln Tyr Thr Ala Pro Lys Gln Pro Lys Lys Gly Gln Gly 90 Thr Ala Ala Thr Gly Asn Gln Ala Thr Pro Lys Thr Ala Pro Ala Thr 105 100 Met Ser Thr Pro Thr Ile Leu Val Ala Thr Ala Val His Ala Tyr Arg 115 120 125 Tyr Thr Asn Gly Gln Tyr Val Lys Gln Gly Lys Phe Gly Ala Ala Val 135 Leu Gly Asn His Thr Thr Arg Glu Tyr Arg Ile Leu Leu Tyr Ile Ser 150 155 Gln Gln Gln Pro Val Thr Val Ala Arg Ile His Val Asn Phe Glu Leu 165 170 175 Met Val Arg Pro Asn Asn Tyr Ser Thr Phe Tyr Asp Asp Gln Arg Gln Asn Trp Ser Ile Met Phe Glu Ser Glu Lys Ala Ala Val Glu Phe Asn 200 195 205 Lys Gln Val Cys Ile Ala Lys Cys Asn Ser Thr Ser Ser Leu Asp Ala 215 220 Val Leu Ser Gln Asp Leu Ile Val Ala Asp Gly Pro Ala Val Glu Val 230 235 Gly Asp Ser Leu Glu Val Ala Tyr Thr Gly Trp Leu Phe Gln Asn His 250

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Val Leu Gly Gln Val Phe Asp Ser Thr Ala Asn Lys Asp Lys Leu Leu
                            265
Arg Leu Lys Leu Gly Ser Gly Lys Val Ile Lys Gly Trp Glu Asp Gly
                                          285
                  . 280
      275
Met Leu Gly Met Lys Lys Gly Gly Lys Arg Leu Leu Ile Val Pro Pro
                                       300
                   295
Ala Cys Ala Val Gly Ser Glu Gly Val Ile Gly Trp Thr Gln Ala Thr
                                   315
                 310
Asp Ser Ile Leu Val Phe Glu Val Glu Val Arg Arg Val Lys Ile Ala
                              330
             325
Lys Asp Ser Gly Ser Asp Gly His Ser Val Ser Ser Arg Asp Ser Ala
                                     350
                           345
          340
Ala Pro Ser Pro Ile Pro Gly Ala Asp Asn Leu Ser Ala Asp Pro Val
                                 365
                       360
     355
Val Ser Pro Pro Thr Ser Ile Pro Phe Lys Ser Gly Glu Pro Ala Leu
                             380
          375
Arg Thr Lys Ser Asn Ser Leu Ser Glu Gln Leu Ala Ile Asn Thr Ser
                390
                                  395
Pro Asp Ala Val Lys Ala Lys Leu Ile Ser Arg Met Ala Lys Met Gly
                               410
Gln Pro Met Leu Pro Ile Leu Pro Pro Gln Leu Asp Ser Asn Asp Ser
                            425
                                              430
          420
Glu Ile Glu Asp Val Asn Thr Leu Gln Gly Gly Gly Gln Pro Val Val
                      440
      435
Thr Pro Ser Val Gln Pro Ser Leu Gln Pro Ala His Pro Ala Leu Pro
                                       460
             455
Gln Met Thr Ser Gln Ala Pro Gln Pro Ser Val Thr Gly Leu Gln Ala
                         475
                 470
Pro Ser Ala Ala Leu Met Gln Val Ser Ser Leu Asp Ser His Ser Ala
                                        495
             485
                               490
Val Ser Gly Asn Ala Gln Ser Phe Gln Pro Tyr Ala Gly Met Gln Ala
                            505
                                              510
          500
Tyr Ala Tyr Pro Gln Ala Ser Ala Val Thr Ser Gln Leu Gln Pro Val
                                          525
              520
      515
Arg Pro Leu Tyr Pro Ala Pro Leu Ser Gln Pro Pro His Phe Gln Gly
                                      540
            535
Ser Gly Asp Met Ala Ser Phe Leu Met Thr Glu Ala Arg Gln His Asn
                      555
                 550
Thr Glu Ile Arg Met Ala Val Ser Lys Val Ala Asp Lys Met Asp His
                                570
Leu Met Thr Lys Val Glu Glu Leu Gln Lys His Ser Ala Gly Asn Ser
                            585
                                             590
          580
Met Leu Ile Pro Ser Met Ser Val Thr Met Glu Thr Ser Met Ile Met
      595 600
                                         605
Ser Asn Ile Gln Arg Ile Ile Gln Glu Asn Glu Arg Leu Lys Gln Glu
                                      620
                    615
Ile Leu Glu Lys Ser Asn Arg Ile Glu Glu Gln Asn Asp Lys Ile Ser
                 630
                                   635
Glu Leu Ile Glu Arg Asn Gln Arg Tyr Val Glu Gln Ser Asn Leu Met
                                650
             645
Met Glu Lys Arg Asn Asn Ser Leu Gln Thr Ala Thr Glu Asn Thr Gln
                            665
          660
Ala Arg Val Leu His Ala Glu Gln Glu Lys Ala Lys Val Thr Glu Glu
                                          685
       675 680
Leu Ala Ala Ala Thr Ala Gln Val Ser His Leu Gln Leu Lys Met Thr
                     695
                             700
Ala His Gln Lys Lys Glu Thr Glu Leu Gln Met Gln Leu Thr Glu Ser 705 710 715 720
                710
Leu Lys Glu Thr Asp Leu Leu Arg Gly Gln Leu Thr Lys Val Gln Ala
                                730
              725
Lys Leu Ser Glu Leu Gln Glu Thr Ser Glu Gln Ala Gln Ser Lys Phe
                                            750
           740
                  745
Lys Ser Glu Lys Gln Asn Arg Lys Gln Leu Glu Leu Lys Val Thr Ser
                        760
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Leu Glu Glu Glu Leu Thr Asp Leu Arg Val Glu Lys Glu Ser Leu Glu 775 780 Lys Asn Leu Ser Glu Arg Lys Lys Ser Ala Gln Glu Arg Ser Gln 785 790 Ala Glu Glu Glu Ile Asp Glu Ile Arg Lys Ser Tyr Gln Glu Glu Leu 810 Asp Lys Leu Arg Gln Leu Leu Lys Lys Thr Arg Val Ser Thr Asp Gln 820 825 Ala Ala Ala Glu Gln Leu Ser Leu Val Gln Ala Glu Leu Gln Thr Gln 840 Trp Glu Ala Lys Cys Glu His Leu Leu Ala Ser Ala Lys Asp Glu His 855 860 Leu Gln Gln Tyr Gln Glu Val Cys Ala Gln Arg Asp Ala Tyr Gln Gln 870 875 Lys Leu Val Gln Leu Gln Glu Lys Ser Val Cys Phe Ala Cys Leu Ala 885 890 Leu Gln Ala Gln Ile Thr Ala Leu Thr Lys Gln Asn Glu Gln His Ile 900 905 910 Lys Glu Leu Glu Lys Asn Lys Ser Gln Met Ser Gly Val Glu Ala Ala 920 Ala Ser Asp Pro Ser Glu Lys Val Lys Lys Ile Met Asn Gln Val Phe 935 940 Gln Ser Leu Arg Arg Glu Phe Glu Leu Glu Glu Ser Tyr Asn Gly Arg 950 955 Thr Ile Leu Gly Thr Ile Met Asn Thr Ile Lys Met Val Thr Leu Gln 965 970 Leu Leu Asn Gln Gln Glu Glu Lys Glu Glu Ser Ser Glu Glu 985 990 980 Glu Glu Glu Lys Ala Glu Glu Arg Pro Arg Arg Pro Ser Gln Glu Gln 1000 1005 Ser Ala Ser Ala Ser Ser Gly Gln Pro Gln Ala Pro Leu Asn Arg Glu 1010 1015 1020 Arg Pro Glu Ser Pro Met Val Pro Ser Glu Gln Val Val Glu Glu Ala 1025 1030 1035 Val Pro Leu Pro Pro Gln Ala Leu Thr Thr Ser Gln Asp Gly His Arg 1045 1050 Arg Lys Gly Asp Ser Glu Ala Glu Ala Leu Ser Glu Ile Lys Asp Gly 1060 1065 1070 Ser Leu Pro Pro Glu Leu Ser Cys Ile Pro Ser His Arg Val Leu Gly 1075 1080 1085 Pro Pro Thr Ser Ile Pro Pro Glu Pro Leu Gly Pro Val Ser Met Asp 1090 1095 1100 Ser Glu Cys Glu Glu Ser Leu Ala Ala Ser Pro Met Ala Ala Lys Pro 1110 1115 Asp Asn Pro Ser Gly Lys Val Cys Val Arg Glu Val Ala Pro Asp Gly 1125 1130 1135 Pro Leu Gln Glu Ser Ser Thr Arg Leu Ser Leu Thr Ser Asp Pro Glu 1140 . 1145 1150 Glu Gly Asp Pro Leu Ala Leu Gly Pro Glu Ser Pro Gly Glu Pro Gln 1155 1160 1165 Pro Pro Gln Leu Lys Lys Asp Asp Val Thr Ser Ser Thr Gly Pro His 1170 1175 1180 Lys Glu Leu Ser Ser Thr Glu Ala Gly Ser Thr Val Ala Gly Ala Ala 1185 1190 1195 Leu Arg Pro Ser His His Ser Gln Arg Ser Ser Leu Ser Gly Asp Glu 1205 1210 1215 Glu Asp Glu Leu Phe Lys Gly Ala Thr Leu Lys Ala Leu Arg Pro Lys 1220 1225 1230 Ala Gln Pro Glu Glu Glu Asp Glu Asp Glu Val Ser Met Lys Gly Arg 1235 1240 1245 Pro Pro Pro Thr Pro Leu Phe Gly Asp Asp Asp Asp Asp Asp Ile 1255 1260 Asp Trp Leu Gly

<210> 2167 <211> 339 <212> PRT <213> Homo sapiens

<400> 2167 Phe Phe Arg Ser Ser Ser Asp Asn Gly Ser Pro Ile Arg Gln Tyr Glu 1 5 10 His Ser Thr Pro Ala His Gln Gly Pro Val Met Gly Leu Glu Gly Lys 25 20 Ser Ala Arg Asn Ser Gln Leu Arg Ile Val Leu Val Gly Lys Thr Gly 35 40 45 Ala Gly Lys Ser Ala Thr Gly Asn Ser Ile Leu Gly Arg Lys Val Phe 50 55 60 His Ser Gly Thr Ala Ala Lys Ser Ile Thr Lys Lys Cys Glu Lys Arg 65 70 75 Ser Ser Ser Trp Lys Glu Thr Glu Leu Val Val Val Asp Thr Pro Gly 90 85 Ile Phe Asp Thr Glu Val Pro Asn Ala Glu Thr Ser Lys Glu Ile Ile 110 105 100 Arg Cys Ile Leu Leu Thr Ser Pro Gly Pro His Ala Leu Leu Leu Val 115 120 125 Val Pro Leu Gly Arg Tyr Thr Glu Glu Glu His Lys Ala Thr Glu Lys 130 135 140 Ile Leu Lys Met Phe Gly Glu Arg Ala Arg Ser Phe Met Ile Leu Ile 145 150 155 Phe Thr Arg Lys Asp Asp Leu Gly Asp Thr Asn Leu His Asp Tyr Leu 165 170 175 Arg Glu Ala Pro Glu Asp Ile Gln Asp Leu Met Asp Ile Phe Gly Asp 190 180 185 Arg Tyr Cys Ala Leu Asn Asn Lys Ala Thr Gly Ala Glu Glu Ala 195 200 205 195 200 Gln Arg Ala Gln Leu Leu Gly Leu Ile Gln Arg Val Val Arg Glu Asn 210 215 220 Lys Glu Gly Cys Tyr Thr Asn Arg Met Tyr Gln Arg Ala Glu Glu Glu 225 230 235 Ile Gln Lys Gln Thr Gln Ala Met Gln Glu Leu His Arg Val Glu Leu 250 255 245 Glu Arg Glu Lys Ala Arg Ile Arg Glu Glu Tyr Glu Glu Lys Ile Arg 270 265 260 Lys Leu Glu Asp Lys Val Glu Gln Glu Lys Arg Lys Lys Gln Met Glu 275 280 285 Lys Lys Leu Ala Glu Gln Glu Ala His Tyr Ala Val Arg Gln Gln Arg 290 295 300 Ala Arg Thr Glu Val Glu Ser Lys Asp Gly Ile Leu Glu Leu Ile Met 305 310 315 320 305 310 Thr Ala Leu Gln Ile Ala Ser Phe Ile Leu Leu Arg Leu Phe Ala Glu 325 Asp

337

<210> 2168 <211> 514 <212> PRT <213> Homo sapiens

<400> 2168

Ala Pro Ser Gly Ser Trp Thr Arg Val Val Leu Thr Leu Asp Pro Cys Ser Leu Arg Ser Arg Ser Pro Arg Ser Leu Leu Asp Pro Gly Met Pro Gly Ile Ser Ala Arg Gly Leu Ser His Glu Gly Arg Lys Gln Leu Ala Val Asn Leu Thr Arg Val Leu Ala Leu Tyr Arg Ser Ile Leu Asp Ala - 55 Tyr Ile Ile Glu Phe Phe Thr Asp Asn Leu Trp Asp Thr Leu Pro Cys Ser Trp Gln Glu Ala Leu Asp Gly Leu Lys Pro Pro Gln Leu Ala Thr Met Leu Leu Gly Met Pro Gly Glu Gly Glu Val Val Arg Tyr Arg Ser Val Trp Pro Leu Thr Leu Leu Ala Leu Lys Ser Thr Ala Cys Ala Leu Ala Phe Thr Arg Met Pro Gly Phe Gln Thr Pro Ser Glu Phe Leu Glu Asn Pro Ser Gln Ser Ser Arg Leu Thr Ala Pro Phe Arg Lys His Val Arg Pro Lys Lys Gln His Glu Ile Arg Arg Leu Gly Glu Leu Val Lys Lys Leu Ser Asp Phe Thr Gly Leu His Pro Gly Cys Arg Arg Gly Leu Arg Pro Gly His Leu Ser Arg Phe Met Ala Leu Gly Leu Gly Leu Met Val Lys Ser Ile Glu Gly Asp Gln Arg Leu Val Glu Arg Ala Gln Arg Leu Asp Gln Glu Leu Leu Gln Ala Leu Glu Lys Glu Glu Lys Arg Asn Pro Gln Val Val Gln Thr Ser Pro Arg His Ser Pro His His Val Val . 245 Arg Trp Val Asp Pro Thr Ala Leu Cys Glu Glu Leu Leu Pro Leu Glu Asn Pro Cys Gln Gly Arg Ala Arg Leu Leu Thr Gly Leu His Ala Cys Gly Asp Leu Ser Val Ala Leu Leu Arg His Phe Ser Cys Cys Pro Glu Val Val Ala Leu Ala Ser Val Gly Cys Cys Tyr Met Lys Leu Ser Asp Pro Gly Gly Tyr Pro Leu Ser Gln Trp Val Ala Gly Leu Pro 325 330 Gly Tyr Glu Leu Pro Tyr Arg Leu Arg Glu Gly Ala Cys His Ala Leu Glu Glu Tyr Ala Glu Arg Leu Gln Lys Ala Gly Pro Gly Leu Arg Thr His Cys Tyr Arg Ala Ala Leu Glu Thr Val Ile Arg Arg Ala Arg Pro Glu Leu Arg Arg Pro Gly Val Gln Gly Ile Pro Arg Val His Glu Leu Lys Ile Glu Glu Tyr Val Gln Arg Gly Leu Gln Arg Val Gly Leu Asp Pro Gln Leu Pro Leu Asn Leu Ala Ala Leu Gln Ala His Leu Ala Gln Glu Asn Arg Val Val Ala Phe Phe Ser Leu Ala Leu Leu Leu Ala Pro Leu Val Glu Thr Leu Ile Leu Leu Asp Arg Leu Leu Tyr Leu Gln Glu Gln Ala Leu Ser Pro Gly Phe His Ala Glu Leu Leu Pro Ile Phe Ser Pro Glu Leu Ser Pro Arg Asn Leu Val Leu Val Ala Thr Lys Met Pro Leu Gly Gln Ala Leu Ser Val Leu Glu Thr Glu Asp Ser 

<210> 2169 <211> 877 <212> PRT <213> Homo sapiens

<400> 2169 Ser Gly Ser Gly His Cys Leu Ala Glu Ala Ala Ser Met Gly Pro Trp 10 Gly Trp Lys Leu Arg Trp Thr Val Ala Leu Leu Leu Ala Ala Gly 25 20 Thr Ala Val Gly Asp Arg Cys Glu Arg Asn Glu Phe Gln Cys Gln Asp 40 Gly Lys Cys Ile Ser Tyr Lys Trp Val Cys Asp Gly Ser Ala Glu Cys 60 . 55 Gln Asp Gly Ser Asp Glu Ser Gln Glu Thr Cys Leu Ser Val Thr Cys 75 70 Lys Ser Gly Asp Phe Ser Cys Gly Gly Arg Val Asn Arg Cys Ile Pro 90 85 Gln Phe Trp Arg Cys Asp Gly Gln Val Asp Cys Asp Asn Gly Ser Asp 110 105 100 Glu Gln Gly Cys Pro Pro Lys Thr Cys Ser Gln Asp Glu Phe Arg Cys 115 120 His Asp Gly Lys Cys Ile Ser Arg Gln Phe Val Cys Asp Ser Asp Arg 130 135 140 Asp Cys Leu Asp Gly Ser Asp Glu Ala Ser Cys Pro Val Leu Thr Cys 145 150 155 Gly Pro Ala Ser Phe Gln Cys Asn Ser Ser Thr Cys Ile Pro Gln Leu 165 175 170 Trp Ala Cys Asp Asn Asp Pro Asp Cys Glu Asp Gly Ser Asp Glu Trp
180 185 190 Pro Gln Arg Cys Arg Gly Leu Tyr Val Phe Gln Gly Asp Ser Ser Pro 195 200 205 Cys Ser Ala Phe Glu Phe His Cys Leu Ser Gly Glu Cys Ile His Ser 210 215 220 Ser Trp Arg Cys Asp Gly Gly Pro Asp Cys Lys Asp Lys Ser Asp Glu 235 230 Glu Asn Cys Ala Val Ala Thr Cys Arg Pro Asp Glu Phe Gln Cys Ser 255 245 250 Asp Gly Asn Cys Ile His Gly Ser Arg Gln Cys Asp Arg Glu Tyr Asp 265 Cys Lys Asp Met Ser Asp Glu Val Gly Cys Val Asn Val Thr Leu Cys 275 280 285 275 Glu Gly Pro Asn Lys Phe Lys Cys His Ser Gly Glu Cys Ile Thr Leu 290 295 300 290 295 Asp Lys Val Cys Asn Met Ala Arg Asp Cys Arg Asp Trp Ser Asp Glu 315 310 Pro Ile Lys Glu Cys Gly Thr Asn Glu Cys Leu Asp Asn Asn Gly Gly 325 335 330 Cys Ser His Val Cys Asn Asp Leu Lys Ile Gly Tyr Glu Cys Leu Cys 340 345 350 Pro Asp Gly Phe Gln Leu Val Ala Gln Arg Arg Cys Glu Asp Ile Asp 365 355 360 Glu Cys Gln Asp Pro Asp Thr Cys Ser Gln Leu Cys Val Asn Leu Glu 370 375 380 Gly Gly Tyr Lys Cys Gln Cys Glu Glu Gly Phe Gln Leu Asp Pro His 390 395 Thr Lys Ala Cys Lys Ala Val Gly Ser Ile Ala Tyr Leu Phe Phe Thr 405 410 415 Asn Arg His Glu Val Arg Lys Met Thr Leu Asp Arg Ser Glu Tyr Thr 425 430

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Ser Leu Ile Pro Asn Leu Arg Asn Val Val Ala Leu Asp Thr Glu Val
    435
                         440
Ala Ser Asn Arg Ile Tyr Trp Ser Asp Leu Ser Gln Arg Met Ile Cys
                     455
Ser Thr Gln Leu Asp Arg Ala His Gly Val Ser Ser Tyr Asp Thr Val
        470 475
Ile Ser Arg Asp Ile Gln Ala Pro Asp Gly Leu Ala Val Asp Trp Ile
485 490 495
His Ser Asn Ile Tyr Trp Thr Asp Ser Val Leu Gly Thr Val Ser Val
                           505
Ala Asp Thr Lys Gly Val Lys Arg Lys Thr Leu Phe Arg Glu Asn Gly
                         520
Ser Lys Pro Arg Ala Ile Val Val Asp Pro Val His Gly Phe Met Tyr
                     535
                                       540
Trp Thr Asp Trp Gly Thr Pro Ala Lys Ile Lys Lys Gly Gly Leu Asn
              550
                                 555
Gly Val Asp Ile Tyr Ser Leu Val Thr Glu Asn Ile Gln Trp Pro Asn
           565
                              570
Gly Ile Thr Leu Asp Leu Leu Ser Gly Arg Leu Tyr Trp Val Asp Ser
                            585
                                              590
Lys Leu His Ser Ile Ser Ser Ile Asp Val Asn Gly Gly Asn Arg Lys
      595 600
                                          605
Thr Ile Leu Glu Asp Glu Lys Arg Leu Ala His Pro Phe Ser Leu Ala
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Val Phe Glu Asp Lys Val Phe Trp Thr Asp Ile Ile Asn Glu Ala Ile
                 630
                                   635
Phe Ser Ala Asn Arg Leu Thr Gly Ser Asp Val Asn Leu Leu Ala Glu
                      650
             645
Asn Leu Leu Ser Pro Glu Asp Met Val Leu Phe His Asn Leu Thr Gln
         660 665
Pro Arg Gly Val Asn Trp Cys Glu Arg Thr Thr Leu Ser Asn Gly Gly
       675
                         680
Cys Gln Tyr Leu Cys Leu Pro Ala Pro Gln Ile Asn Pro His Ser Pro
                    695
Lys Phe Thr Cys Ala Cys Pro Asp Gly Met Leu Leu Ala Arg Asp Met
                  710
                                 715
Arg Ser Cys Leu Thr Glu Gly Glu Ala Ala Val Ala Thr Gln Glu Thr
           725
                                730
Ser Thr Val Arg Leu Lys Val Ser Ser Thr Ala Val Arg Thr Gln His
          740
                            745
Thr Thr Thr Arg Pro Val Pro Asp Thr Ser Arg Leu Pro Gly Ala Thr
                         760
                                        765
Pro Gly Leu Thr Thr Val Glu Ile Val Thr Met Ser His Gln Ala Leu
                   775
                                       780
Gly Asp Val Ala Gly Arg Gly Asn Glu Lys Lys Pro Ser Ser Val Arg
                 790
                                   795
Ala Leu Ser Ile Val Leu Pro Ile Val Leu Leu Val Phe Leu Cys Leu
             805
                                810
Gly Val Phe Leu Leu Trp Lys Asn Trp Arg Leu Lys Asn Ile Asn Ser
         820
                          825
Ile Asn Phe Asp Asn Pro Val Tyr Gln Lys Thr Thr Glu Asp Glu Val
             840
His Ile Cys His Asn Gln Asp Gly Tyr Ser Tyr Pro Ser Arg Gln Met
                    855
Val Ser Leu Glu Asp Asp Val Ala
                  870 872
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<210> 2170

<211> 1378

<212> PRT

<213> Homo sapiens

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Leu Ser Leu Trp Pro Thr Ser Gly Glu Ile Cys Gly Pro Gly Ile Asp
       35
                        40
Ile Arg Asn Asp Tyr Gln Gln Leu Lys Arg Leu Glu Asn Cys Thr Val
                      55
                                       60
Ile Glu Gly Tyr Leu His Ile Leu Leu Ile Ser Lys Ala Glu Asp Tyr
                                    75
                  70
Arg Ser Tyr Arg Phe Pro Lys Leu Thr Val Ile Thr Glu Tyr Leu Leu
              85
Leu Phe Arg Val Ala Gly Leu Glu Ser Leu Gly Asp Leu Phe Pro Asn
                    105
          100
Leu Thr Val Ile Arg Gly Trp Lys Leu Phe Tyr Asn Tyr Ala Leu Val
                     120 125
Ile Phe Glu Met Thr Asn Leu Lys Asp Ile Gly Leu Tyr Asn Leu Arg
                                      140
                    135
Asn Ile Thr Arg Gly Ala Ile Arg Ile Glu Lys Asn Ala Asp Leu Cys
                 150
                                   155
Tyr Leu Ser Thr Val Asp Trp Ser Leu Ile Leu Asp Ala Val Ser Asn
                       170
             165
Asn Tyr Ile Val Gly Asn Lys Pro Pro Lys Glu Cys Gly Asp Leu Cys
                                              190
          180
                        185
Pro Gly Thr Met Glu Glu Lys Pro Met Cys Glu Lys Thr Thr Ile Asn
                                          205
                        200
Asn Glu Tyr Asn Tyr Arg Cys Trp Thr Thr Asn Arg Cys Gln Lys Met
                    215
                              220
Cys Pro Ser Thr Cys Gly Lys Arg Ala Cys Thr Glu Asn Asn Glu Cys
                 230
                                   235
Cys His Pro Glu Cys Leu Gly Ser Cys Ser Ala Pro Asp Asn Asp Thr
                              250
             245
Ala Cys Val Ala Cys Arg His Tyr Tyr Tyr Ala Gly Val Cys Val Pro
260 270
                    265
       260
Ala Cys Pro Pro Asn Thr Tyr Arg Phe Glu Gly Trp Arg Cys Val Asp
                                        285
                        280
Arg Asp Phe Cys Ala Asn Ile Leu Ser Ala Glu Ser Ser Asp Ser Glu
                     295
                                       300
Gly Phe Val Ile His Asp Gly Glu Cys Met Gln Glu Cys Pro Ser Gly
                 310
                                    315
Phe Ile Arg Asn Gly Ser Gln Ser Met Tyr Cys Ile Pro Cys Glu Gly
                               330
            325
Pro Cys Pro Lys Val Cys Glu Glu Glu Lys Lys Thr Lys Thr Ile Asp
                    345
          340
Ser Val Thr Ser Ala Gln Met Leu Gln Gly Cys Thr Ile Phe Lys Gly
                        360
                                         365
Asn Leu Leu Ile Asn Ile Arg Arg Gly Asn Asn Ile Ala Ser Glu Leu
                     375
                                       380
Glu Asn Phe Met Gly Leu Ile Glu Val Val Thr Gly Tyr Val Lys Ile
                  390
                                    395
Arg His Ser His Ala Leu Val Ser Leu Ser Phe Leu Lys Asn Leu Arg
                       410
              405
Leu Ile Leu Gly Glu Glu Gln Leu Glu Gly Asn Tyr Ser Phe Tyr Val
                     425
                                    430
          420
Leu Asp Asn Gln Asn Leu Gln Gln Leu Trp Asp Trp Asp His Arg Asn
                         440
       435
Leu Thr Ile Lys Ala Gly Lys Met Tyr Phe Ala Phe Asn Pro Lys Leu
                                       460
                     455
Cys Val Ser Glu Ile Tyr Arg Met Glu Glu Val Thr Gly Thr Lys Gly
                        475
                 470
Arg Gln Ser Lys Gly Asp Ile Asn Thr Arg Asn Asn Gly Glu Arg Ala
                                490
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Ser Cys Glu Ser Asp Val Leu His Phe Thr Ser Thr Thr Thr Ser Lys 500 505 Asn Arg Ile Ile Ile Thr Trp His Arg Tyr Arg Pro Pro Asp Tyr Arg 520 525 Asp Leu Ile Ser Phe Thr Val Tyr Tyr Lys Glu Ala Pro Phe Lys Asn 535 540 Val Thr Glu Tyr Asp Gly Gln Asp Ala Cys Gly Ser Asn Ser Trp Asn 550 555 Met Val Asp Val Asp Leu Pro Pro Asn Lys Asp Val Glu Pro Gly Ile 565 570 Leu Leu His Gly Leu Lys Pro Trp Thr Gln Tyr Ala Val Tyr Val Lys 580 585 590 Ala Val Thr Leu Thr Met Val Glu Asn Asp His Ile Arg Gly Ala Lys 600 Ser Glu Ile Leu Tyr Ile Arg Thr Asn Ala Ser Val Pro Ser Ile Pro 615 620 Leu Asp Val Leu Ser Ala Ser Asn Ser Ser Ser Gln Leu Ile Val Lys 630 635 Trp Asn Pro Pro Ser Leu Pro Asn Gly Asn Leu Ser Tyr Tyr Ile Val 650 645 Arg Trp Gln Arg Gln Pro Gln Asp Gly Tyr Leu Tyr Arg His Asn Tyr 660 665 Cys Ser Lys Asp Lys Ile Pro Ile Arg Lys Tyr Ala Asp Gly Thr Ile 675 680 685 Asp Ile Glu Glu Val Thr Glu Asn Pro Lys Thr Glu Val Cys Gly Gly 695 700 Glu Lys Gly Pro Cys Cys Ala Cys Pro Lys Thr Glu Ala Glu Lys Gln 710 715 Ala Glu Lys Glu Glu Ala Glu Tyr Arg Lys Val Phe Glu Asn Phe Leu 725 730 His Asn Ser Ile Phe Val Pro Arg Pro Glu Arg Lys Arg Arg Asp Val 740 745 Met Gln Val Ala Asn Thr Thr Met Ser Ser Arg Ser Arg Asn Thr Thr 760 Ala Ala Asp Thr Tyr Asn Ile Thr Asp Pro Glu Glu Leu Glu Thr Glu 775 780 Tyr Pro Phe Phe Glu Ser Arg Val Asp Asn Lys Glu Arg Thr Val Ile 795 790 Ser Asn Leu Arg Pro Phe Thr Leu Tyr Arg Ile Asp Ile His Ser Cys 805 810 Asn His Glu Ala Glu Lys Leu Gly Cys Ser Ala Ser Asn Phe Val Phe 825 Ala Arg Thr Met Pro Ala Glu Gly Ala Asp Asp Ile Pro Gly Pro Val 840 845 Thr Trp Glu Pro Arg Pro Glu Asn Ser Ile Phe Leu Lys Trp Pro Glu 855 860 Pro Glu Asn Pro Asn Gly Leu Ile Leu Met Tyr Glu Ile Lys Tyr Gly B70 875 Ser Gln Val Glu Asp Gln Arg Glu Cys Val Ser Arg Gln Glu Tyr Arg 885 890 Lys Tyr Gly Gly Ala Lys Leu Asn Arg Leu Asn Pro Gly Asn Tyr Thr 900 905 Ala Arg Ile Gln Ala Thr Ser Leu Ser Gly Asn Gly Ser Trp Thr Asp 920 Pro Val Phe Phe Tyr Val Gln Ala Lys Arg Tyr Glu Asn Phe Ile His 935 940 Leu Ile Ile Ala Leu Pro Val Ala Val Leu Leu Ile Val Gly Gly Leu 950 955 Val Ile Met Leu Tyr Val Phe His Arg Lys Arg Asn Asn Ser Arg Leu 970 Gly Asn Gly Val Leu Tyr Ala Ser Val Asn Pro Glu Tyr Phe Ser Ala 980 985 990 Ala Asp Val Tyr Val Pro Asp Glu Trp Glu Val Ala Arg Glu Lys Ile 1000 1005

Thr Met Ser Arg Glu Leu Gly Gln Gly Ser Phe Gly Met Val Tyr Glu 1015 1020 Gly Val Ala Lys Gly Val Val Lys Asp Glu Pro Glu Thr Arg Val Ala 1035 1040 1030 1025 Ile Lys Thr Val Asn Glu Ala Ala Ser Met Arg Glu Arg Ile Glu Phe 1045 1050 1055 Leu Asn Glu Ala Ser Val Met Lys Glu Phe Asn Cys His His Val Val 1065 1070 1060 Arg Leu Leu Gly Val Val Ser Gln Gly Gln Pro Thr Leu Val Ile Met 1080 1085 1075 Glu Leu Met Thr Arg Gly Asp Leu Lys Ser Tyr Leu Arg Ser Leu Arg 1090 1095 1100 Pro Glu Met Glu Asn Asn Pro Val Leu Ala Pro Pro Ser Leu Ser Lys 1110 1115 1120 Met Ile Gln Met Ala Gly Glu Ile Ala Asp Gly Met Ala Tyr Leu Asn 1130 1135 1125 Ala Asn Lys Phe Val His Arg Asp Leu Ala Ala Arg Asn Cys Met Val 1145 1150 1140 Ala Glu Asp Phe Thr Val Lys Ile Gly Asp Phe Gly Met Thr Arg Asp 1155 1160 1165 Ile Tyr Glu Thr Asp Tyr Tyr Arg Lys Gly Gly Lys Gly Leu Leu Pro 1180 1170 1175 Val Arg Trp Met Ser Pro Glu Ser Leu Lys Asp Gly Val Phe Thr Thr 1185 1190 1195 1200 Tyr Ser Asp Val Trp Ser Phe Gly Val Val Leu Trp Glu Ile Ala Thr 1205 1210 1215 Leu Ala Glu Gln Pro Tyr Gln Gly Leu Ser Asn Glu Gln Val Leu Arg 1220 1225 1230 Phe Val Met Glu Gly Gly Leu Leu Asp Lys Pro Asp Asn Cys Pro Asp 1240 1245 1235 Met Leu Phe Glu Leu Met Arg Met Cys Trp Gln Tyr Asn Pro Lys Met 1250 1255 1260 Arg Pro Ser Phe Leu Glu Ile Ile Ser Ser Ile Lys Glu Glu Met Glu 1265 1270 1275 1280 Pro Gly Phe Arg Glu Val Ser Phe Tyr Tyr Ser Glu Glu Asn Lys Leu 1285 1290 1295 Pro Glu Pro Glu Glu Leu Asp Leu Glu Pro Glu Asn Met Glu Ser Val 1300 1305 1310 Pro Leu Asp Pro Ser Ala Ser Ser Ser Ser Leu Pro Leu Pro Asp Arg 1315 1320 1325 His Ser Gly His Lys Ala Glu Asn Gly Pro Gly Pro Gly Val Leu Val 1335 1340 1330 Leu Arg Ala Ser Phe Asp Glu Arg Gln Pro Tyr Ala His Met Asn Gly 1350 1355 Gly Arg Lys Asn Glu Arg Ala Leu Pro Leu Pro Gln Ser Ser Thr Cys 1370 13751376 1365

> <210> 2171 <211> 240 <212> PRT <213> Homo sapiens

Ser Ser Val Leu Arg Cys Gly Lys Lys Val Trp Leu Asp Pro Asn 55 Glu Thr Asn Glu Ile Ala Asn Ala Asn Ser Arg Gln Gln Ile Arg Lys 70 Leu Ile Lys Asp Gly Leu Ile Ile Arg Lys Pro Val Thr Val His Ser 85 90 Arg Ala Arg Cys Arg Lys Asn Thr Leu Ala Arg Arg Lys Gly Arg His 105 110 Met Gly Ile Gly Lys Arg Lys Gly Thr Ala Asn Ala Arg Met Pro Glu 115 120 125 Lys Val Thr Trp Met Arg Arg Met Arg Ile Leu Arg Arg Leu Leu Arg 135 Arg Tyr Arg Glu Ser Lys Arg Tyr Arg Glu Ser Lys Lys Ile Asp Arg 150 155 His Met Tyr His Ser Leu Tyr Leu Lys Val Lys Gly Asn Val Phe Lys 165 170 Asn Lys Arg Ile Leu Met Glu His Ile His Lys Leu Lys Ala Asp Lys 180 185 Ala Arg Lys Leu Leu Ala Asp Gln Ala Glu Ala Arg Arg Ser Lys 200 205 Thr Lys Glu Ala Arg Lys Arg Arg Glu Glu Arg Leu Gln Ala Lys Lys 215 220 Glu Glu Ile Ile Lys Thr Leu Ser Lys Glu Glu Glu Thr Lys Lys 230 235

<210> 2172 <211> 262 <212> PRT <213> Homo sapiens

<400> 2172 Asp Phe Arg Pro Gly Leu Leu Pro Arg Lys Lys Met Phe Gly 10 Phe His Lys Pro Lys Met Tyr Arg Ser Ile Glu Gly Cys Cys Ile Ser 20 25 Gly Ala Lys Ser Ser Ser Ser Arg Phe Thr Asp Ser Lys Arg Tyr Glu 4.0 Lys Asp Phe Gln Ser Cys Phe Gly Leu His Glu Thr Arg Ser Gly Asp 55 60 Ile Cys Asn Ala Cys Val Leu Leu Leu Lys Arg Trp Lys Lys Leu Pro 70 75 Ala Gly Ser Lys Lys Asn Trp Asn His Val Val Asp Ala Arg Ala Gly Pro Ser Leu Lys Thr Thr Leu Lys Pro Lys Lys Val Lys Thr Leu Ser 100 105 110 Gly Asn Arg Ile Lys Ser Thr Gln Ile Ser Lys Leu Gln Lys Glu Phe 120 115 Lys Arg His Asn Ser Asp Ala His Ser Thr Thr Ser Ser Ala Ser Pro 135 140 Ala Gln Ser Pro Leu Phe Thr Val Asn Gln Phe Arg Trp Thr Gly Ser . 150 155 Asp Thr Gly Val Gly Phe Pro Gly Ser Asn Arg Asn His Pro Val Phe 165 170 Ser Phe Leu Asp Leu Thr Tyr Trp Lys Arg Gln Lys Ile Cys Cys Gly 185 190 Ile Ile Tyr Lys Gly Arg Phe Gly Glu Val Leu Ile Asp Thr His Leu . 195 200 . 205 Phe Lys Pro Cys Cys Ser Asn Lys Lys Ala Ala Ala Glu Lys Pro Glu 215 220 Glu Gln Gly Pro Glu Pro Leu Pro Ile Ser Thr Gln Glu Trp Val Thr 230 235

Glu Val Phe Met 244

> <210> 2173 <211> 1354 <212> PRT <213> Homo sapiens

<400> 2173 Pro Tyr Leu Ala Thr Leu Gln Leu Asp Ser Ser Leu Leu Ile Pro Pro 1 5 10 Lys Tyr Gln Thr Pro Pro Ala Ala Ala Gln Gly Gln Ala Thr Pro Gly 25 20 Asn Ala Gly Pro Leu Ala Pro Asn Gly Ser Ala Ala Pro Pro Ala Gly 35 40 . 45 Ser Ala Phe Asn Pro Thr Ser Asn Ser Ser Ser Thr Asn Pro Ala Ala 55 60 Ser Ser Ser Ala Ser Gly Ser Ser Val Pro Pro Val Ser Ser Ser Ala 70 75 Ser Ala Pro Gly Ile Ser Gln Ile Ser Thr Thr Ser Ser Ser Gly Phe 90 85 Ser Gly Ser Val Gly Gly Gln Asn Pro Ser Thr Gly Gly Ile Ser Ala 100 105 Asp Arg Thr Gln Gly Asn Ile Gly Cys Gly Gly Asp Thr Asp Pro Gly 115 120 125 Gln Ser Ser Ser Gln Pro Ser Gln Asp Gly Gln Glu Ser Asn Val Pro 135 140 Ser Val Gly Ser Leu Ala Asp Pro Asp Tyr Leu Asn Thr Pro Gln Met 145 150 155 160 Asn Thr Pro Val Thr Leu Asn Ser Ala Ala Pro Ala Ser Asn Ser Gly 170 175 165 Ala Gly Val Leu Pro Ser Pro Ala Thr Pro Arg Phe Ser Val Pro Thr 180 185 190 Pro Arg Thr Pro Arg Thr Pro Arg Thr Pro Arg Gly Gly Thr Ala 195 200 205 Ser Gly Gln Gly Ser Val Lys Tyr Asp Ser Thr Asp Gln Gly Ser Pro 215 220 Ala Ser Thr Pro Ser Thr Thr Arg Pro Leu Asn Ser Val Glu Pro Ala 235 230 Thr Met Gln Pro Ile Pro Glu Ala His Ser Leu Tyr Val Thr Leu Ile 250 255 245 Leu Ser Asp Ser Val Met Asn Ile Phe Lys Asp Arg Asn Phe Asp Ser 260 265 Cys Cys Ile Cys Ala Cys Asn Met Asn Ile Lys Gly Ala Asp Val Gly 275 280 285 Leu Tyr Ile Pro Asp Ser Ser Asn Glu Asp Gln Tyr Arg Cys Thr Cys 295 300 Gly Phe Ser Ala Ile Met Asn Arg Lys Leu Gly Tyr Asn Ser Gly Leu 305 310 315 Phe Leu Glu Asp Glu Leu Asp Ile Phe Gly Lys Asn Ser Asp Ile Gly 325 330 Gln Ala Ala Glu Arg Arg Leu Met Met Cys Gln Ser Thr Phe Leu Pro 350 345 Gln Val Glu Gly Thr Lys Lys Pro Gln Glu Pro Pro Ile Ser Leu Leu 355 360 365 360 355 Leu Leu Gln Asn Gln His Thr Gln Pro Phe Ala Ser Leu Asn Phe 370 375 380 Leu Asp Tyr Ile Ser Ser Asn Asn Arg Gln Thr Leu Pro Cys Val Ser 390 395 Trp Ser Tyr Asp Arg Val Gln Ala Asp Asn Asn Asp Tyr Trp Thr Glu 405 410

Cys Phe Asn Ala Leu Glu Gln Gly Arg Gln Tyr Val Asp Asn Pro Thr 420 425 Gly Gly Lys Val Asp Glu Ala Leu Val Arg Ser Ala Thr Val His Ser Trp Pro His Ser Asn Val Leu Asp Ile Ser Met Leu Ser Ser Gln Asp Val Val Arg Met Leu Leu Ser Leu Gln Pro Phe Leu Gln Asp Ala Ile Gln Lys Lys Arg Thr Gly Arg Thr Trp Glu Asn Ile Gln His Val Gln Gly Pro Leu Thr Trp Gln Gln Phe His Lys Met Ala Gly Arg Gly Thr Tyr Gly Ser Glu Glu Ser Pro Glu Pro Leu Pro Ile Pro Thr Leu Leu Val Gly Tyr Asp Lys Asp Phe Leu Thr Ile Ser Pro Phe Ser Leu Pro . 535 Phe Trp Glu Arg Leu Leu Asp Pro Tyr Gly Gly His Arg Asp Val Ala Tyr Ile Val Val Cys Pro Glu Asn Glu Ala Leu Leu Glu Gly Ala Lys Thr Phe Phe Arg Asp Leu Ser Ala Val Tyr Glu Met Cys Arg Leu Gly Gln His Lys Pro Ile Cys Lys Val Leu Arg Asp Gly Ile Met Arg Val Gly Lys Thr Val Ala Gln Lys Leu Thr Asp Glu Leu Val Ser Glu Trp Phe Asn Gln Pro Trp Ser Gly Glu Glu Asn Asp Asn His Ser Arg Leu Lys Leu Tyr Ala Gln Val Cys Arg His His Leu Ala Pro Tyr Leu Ala Thr Leu Gln Leu Asp Ser Ser Leu Leu Ile Pro Pro Lys Tyr Gln Thr Pro Pro Ala Ala Ala Gln Gly Gln Ala Thr Pro Gly Asn Ala Gly Pro Leu Ala Pro Asn Gly Ser Ala Ala Pro Pro Ala Gly Ser Ala Phe Asn Pro Thr Ser Asn Ser Ser Ser Thr Asn Pro Ala Ala Ser Ser Ser Ala Ser Gly Ser Ser Val Pro Pro Val Ser Ser Ser Ala Ser Ala Pro Gly Ile Ser Gln Ile Ser Thr Thr Ser Ser Ser Gly Phe Ser Gly Ser Val Gly Gly Gln Asn Pro Ser Thr Gly Gly Ile Ser Ala Asp Arg Thr Gln Gly Asn Ile Gly Cys Gly Gly Asp Thr Asp Pro Gly Gln Ser Ser Ser Gln Pro Ser Gln Asp Gly Gln Glu Ser Val Thr Glu Arg Glu Arg Ile Gly Ile Pro Thr Glu Pro Asp Ser Ala Asp Ser His Ala His Pro Pro Ala Val Val Ile Tyr Met Val Asp Pro Phe Thr Tyr Ala Ala Glu Glu Asp Ser Thr Ser Gly Asn Phe Trp Leu Leu Ser Leu Met Arg Cys Tyr Thr Glu Met Leu Asp Asn Leu Pro Glu His Met Arg Asn Ser Phe Ile Leu Gln Ile Val Pro Cys Gln Tyr Met Leu Gln Thr Met Lys Asp Glu Gln Val Phe Tyr Ile Gln Tyr Leu Lys Ser Met Ala Phe Ser Val Tyr Cys Gln Cys Arg Arg Pro Leu Pro Thr Gln Ile His Ile Lys Ser Leu Thr Gly Phe Gly Pro Ala Ala Ser Ile Glu Met Thr Leu Lys Asn

Pro Glu Arg Pro Ser Pro Ile Gln Leu Tyr Ser Pro Pro Phe Ile Leu 940 935 Ala Pro Ile Lys Asp Lys Gln Thr Glu Leu Gly Glu Thr Phe Gly Glu 955 950 Ala Ser Gln Lys Tyr Asn Val Leu Phe Val Gly Tyr Cys Leu Ser His 975 970 965 Asp Gln Arg Trp Leu Leu Ala Ser Cys Thr Asp Leu His Gly Glu Leu 980 985 990 Leu Glu Thr Cys Val Val Asn Ile Ala Leu Pro Asn Arg Ser Arg Arg 1000 1005 Ser Lys Val Ser Ala Arg Lys Ile Gly Leu Gln Lys Leu Trp Glu Trp 1020 1010 1015 Cys Ile Gly Ile Val Gln Met Thr Ser Leu Pro Trp Arg Val Val Ile 1025 1030 1035 1040 Gly Arg Leu Gly Arg Leu Gly His Gly Glu Leu Lys Asp Trp Ser Ile 1045 1050 1055 Leu Leu Gly Glu Cys Ser Leu Gln Thr Ile Ser Lys Lys Leu Lys Asp 1060 1065 1070 Val Cys Arg Met Cys Gly Ile Ser Ala Ala Asp Ser Pro Ser Ile Leu 1075 1080 1085 Ser Ala Cys Leu Val Ala Met Glu Pro Gln Gly Ser Phe Val Val Met 1090 1095 1100 Pro Asp Ala Val Thr Met Gly Ser Val Phe Gly Arg Ser Thr Ala Leu 1110 1115 Asn Met Gln Ser Ser Gln Leu Asn Thr Pro Gln Asp Ala Ser Cys Thr 1125 1130 1135 His Ile Leu Val Phe Pro Thr Ser Ser Thr Ile Gln Val Ala Pro Ala 1140 1145 1150 Asn Tyr Pro Asn Glu Asp Gly Phe Ser Pro Asn Asn Asp Asp Met Phe 1155 1160 1165 Val Asp Leu Pro Phe Pro Asp Asp Met Asp Asn Asp Ile Gly Ile Leu 1170 1175 1180 Met Thr Gly Asn Leu His Ser Ser Pro Asn Ser Ser Pro Val Pro Ser 1190 1195 1200 Pro Gly Ser Pro Ser Gly Ile Gly Val Gly Ser His Phe Gln His Ser 1205 1210 1215 Arg Ser Gln Gly Glu Arg Leu Leu Ser Arg Glu Ala Pro Glu Glu Leu 1220 1225 1230 Lys Gln Gln Pro Leu Ala Leu Gly Tyr Phe Val Ser Thr Ala Lys Ala 1235 1240 1245 Glu Asn Leu Pro Gln Trp Phe Trp Ser Ser Cys Pro Gln Ala Gln Asn 1260 1250 1255 Gln Cys Pro Leu Phe Leu Lys Ala Ser Leu His His His Ile Ser Val 1270 1275 Ala Gln Thr Asp Glu Leu Leu Pro Ala Arg Asn Ser Gln Arg Val Pro 1285 1290 1295 His Pro Leu Asp Ser Lys Thr Thr Ser Asp Val Leu Arg Phe Val Leu 1300 1305 1310 Glu Gln Tyr Asn Ala Leu Ser Trp Leu Thr Cys Asn Pro Ala Thr Gln 1315 1320 1325 Asp Arg Thr Ser Cys Leu Pro Val His Phe Val Val Leu Thr Gln Leu 1330 1335 1340 Tyr Asn Ala Ile Met Asn Ile Leu 1350 1352

<210> 2174 <211> 693 <212> PRT <213> Homo sapiens

<400> 2174

Val Glu Glu Gly Leu Gly Arg Arg Thr Pro Pro Gly Gly Arg Arg Gly Pro Val Thr Pro Ala Arg Pro Gly Pro Asp Ser Val Arg Arg Arg Leu Leu Pro Pro Ser Ser Ala Ala Phe Ser Ser His Arg His Asn Leu Leu Cys Ser Arg Arg Gly Thr Ile Lys Arg Pro Gly Ile Thr Gly Pro Thr Ala Ala Thr Ser Pro Ser Gly Glu Pro Gly Asn Ala Ala Ser Ala Pro Leu Ser Leu Leu Ser Pro Phe Pro Gly Gln Thr Thr Tyr Gln His Pro Gly Val Ala Glu Pro Ser Ala Tyr Gly Gly Arg Asp Val Ala Cys Ala Ser Leu Val Phe Gly Arg Leu Gln His Arg Gly Gly Asp Arg Lys Arg Gly Leu Leu Gly Arg Ser Ser Gly Asp Ala Ala Ser Asp Gln Pro Phe Arg Cys Arg Ser Gly Ser Thr Ala Gly Arg Leu Val Lys Gln Met Asp Phe Thr Glu Ala Tyr Ala Asp Thr Cys Ser Thr Val Gly Leu Ala Ala Arg Glu Gly Asn Val Lys Val Leu Arg Lys Leu Leu Lys Lys Gly Arg Ser Val Asp Val Ala Asp Asn Arg Gly Trp Met Pro Ile His Glu Ala Ala Tyr His Asn Ser Val Glu Cys Leu Gln Met Leu Ile Asn Ala Asp Ser Ser Glu Asn Tyr Ile Lys Met Lys Thr Phe Glu Gly Phe Cys Ala Leu His Leu Ala Ala Ser Gln Gly His Trp Lys Ile Val Gln Ile Leu Leu Glu Ala Gly Ala Asp Pro Asn Ala Thr Thr Leu Glu Glu Thr Thr Pro Leu . 280 Phe Leu Ala Val Glu Asn Gly Gln Ile Asp Val Leu Arg Leu Leu Leu Gln His Gly Ala Asn Val Asn Gly Ser His Ser Met Cys Gly Trp Asn Ser Leu His Gln Ala Ser Phe Gln Glu Asn Ala Glu Ile Ile Lys Leu Leu Leu Arg Lys Gly Ala Asn Lys Glu Cys Gln Asp Asp Phe Gly Ile Thr Pro Leu Phe Val Ala Ala Gln Tyr Gly Lys Leu Glu Ser Leu Ser Ile Leu Ile Ser Ser Gly Ala Asn Val Asn Cys Gln Ala Leu Asp Lys Ala Thr Pro Leu Phe Ile Ala Ala Gln Glu Gly His Thr Lys Cys Val Glu Leu Leu Ser Ser Gly Ala Asp Pro Asp Leu Tyr Cys Asn Glu Asp Ser Trp Gln Leu Pro Ile His Ala Ala Ala Gln Met Gly His Thr 425 430 Lys Ile Leu Asp Leu Leu Ile Pro Leu Thr Asn Arg Ala Cys Asp Thr Gly Leu Asn Lys Val Ser Pro Val Tyr Ser Ala Val Phe Gly Gly His Glu Asp Cys Leu Glu Ile Leu Leu Arg Asn Gly Tyr Ser Pro Asp Ala Gln Ala Cys Leu Val Phe Gly Phe Ser Ser Pro Val Cys Met Ala Phe Gln Lys Asp Cys Glu Phe Phe Gly Ile Val Asn Ile Leu Leu Lys Tyr 

Gly Ala Gln Ile Asn Glu Leu His Leu Ala Tyr Cys Leu Lys Tyr Glu 520 Lys Phe Ser Ile Phe Arg Tyr Phe Leu Arg Lys Gly Cys Ser Leu Gly 540 535 Pro Trp Asn His Ile Tyr Glu Phe Val Asn His Ala Ile Lys Ala Gln 545 550 555 560 Ala Lys Tyr Lys Glu Trp Leu Pro His Leu Leu Val Ala Gly Phe Asp 565 570 Pro Leu Ile Leu Cys Asn Ser Trp Ile Asp Ser Val Ser Ile Asp 580 585 Thr Leu Ile Phe Thr Leu Glu Phe Thr Asn Trp Lys Thr Leu Ala Pro 605 600 Ala Val Glu Arg Met Leu Ser Ala Arg Ala Ser Asn Ala Trp Ile Leu 620 615 Gln Gln His Ile Ala Thr Val Pro Ser Leu Thr His Leu Cys Arg Leu 630 635 Glu Ile Arg Ser Ser Leu Lys Ser Glu Arg Leu Arg Ser Asp Ser Tyr
645 650 655 Ile Ser Gln Leu Pro Leu Pro Arg Ser Leu His Asn Tyr Leu Leu Tyr 665 670 Glu Asp Val Leu Arg Met Tyr Glu Val Pro Glu Leu Ala Ala Ile Gln 680 Asp Gly 690

<210> 2175 <211> 326 <212> PRT <213> Homo sapiens

<400> 2175 Arg Ile Met Gly Leu Phe Asp Arg Gly Val Gln Met Leu Leu Thr Thr 10 Val Gly Ala Phe Ala Ala Phe Ser Leu Met Thr Ile Ala Val Gly Thr 25 20 Asp Tyr Trp Leu Tyr Ser Arg Gly Val Cys Lys Thr Lys Ser Val Ser 40 35 Glu Asn Glu Thr Ser Lys Lys Asn Glu Glu Val Met Thr His Ser Gly 55 Leu Trp Arg Thr Cys Cys Leu Glu Gly Asn Phe Lys Gly Leu Cys Lys 75 70 Gln Ile Asp His Phe Pro Glu Asp Ala Asp Tyr Glu Ala Asp Thr Ala 95 85 90 Glu Tyr Phe Leu Arg Ala Val Arg Ala Ser Ser Ile Phe Pro Ile Leu 100 105 Ser Val Ile Leu Leu Phe Met Gly Gly Leu Cys Ile Ala Ala Ser Glu 120 125 115 Phe Tyr Lys Thr Arg His Asn Ile Ile Leu Ser Ala Gly Ile Phe Phe 135 140 130 Val Ser Ala Gly Leu Ser Asn Ile Ile Gly Ile Ile Val Tyr Ile Ser 150 155 Ala Asn Ala Gly Asp Pro Ser Lys Ser Asp Ser Lys Lys Asn Ser Tyr 170 165 Ser Tyr Gly Trp Ser Phe Tyr Phe Gly Ala Leu Ser Phe Ile Ile Ala 185 190 180 Glu Met Val Gly Val Leu Ala Val His Met Phe Ile Asp Arg His Lys 205 200 195 Gln Leu Arg Ala Thr Ala Arg Ala Thr Asp Tyr Leu Gln Ala Ser Ala 215 Ile Thr Arg Ile Pro Ser Tyr Arg Tyr Arg Tyr Gln Arg Arg Ser Arg

Ser Ser Ser Arg Ser Thr Glu Pro Ser His Ser Arg Asp Ala Ser Pro 245 250 Val Gly Ile Lys Gly Phe Asn Thr Leu Pro Ser Thr Glu Ile Ser Met 265 260 Tyr Thr Leu Ser Arg Asp Pro Leu Lys Ala Ala Thr Thr Pro Thr Ala 285 275 280 Thr Tyr Asn Ser Asp Arg Asp Asn Ser Phe Leu Gln Val His Asn Cys 295 Ile Gln Lys Glu Asn Lys Asp Ser Leu His Ser Asn Thr Ala Asn Arg 315 Arg Thr Thr Pro Val 325

<210> 2176 <211> 1726 <212> PRT <213> Homo sapiens

<400> 2176

Ser Asp Asp Leu Arg Thr Gly Leu Phe Gln Asp Val Gln Asp Ala Glu 10 Ser Leu Lys Leu Pro Gly Val Tyr Glu Val Leu Phe Tyr Asn Glu Thr Glu Asp Cys Pro Gly Met Met Leu Trp Arg Tyr Pro Glu Pro Arg Gly 35 40 Leu Thr Leu Val Arg Ile Thr Pro Val Pro Phe Asn Thr Thr Glu Asp 55 Pro Asp Ile Ser Thr Ala Asp Leu Gly Asp Val Leu Gln Asp Pro Cys 65 70 75 80 Ser Leu Glu Tyr Trp Asp Glu Leu Gln Lys Val Phe Val Ala Phe Arg Glu Phe Asn Leu Ser Glu Ser Lys Val Cys Glu Leu Gln Leu Pro Asp 100 105 110 Ile Asn Leu Val Asn Asp Gln Lys Lys Leu Val Ser Ser Asp Leu Trp 125 115 120 Arg Ile Val Leu Asn Ser Ser Gln Asn Gly Ala Asp Asp Gln Ser Ser 135 140 Ala Ser Glu Ser Gly Ser Gln Ser Thr Cys Asp Pro Leu Val Thr Pro 150 155 Thr Ala Leu Ala Ala Cys Thr Arg Val Asp Ser Cys Phe Thr Pro Trp 170 · 175 165 Phe Val Pro Ser Leu Cys Val Ser Phe Gln Phe Ala His Leu Glu Phe 180 185 His Leu Cys His His Leu Asp Gln Leu Gly Thr Ala Ala Pro Gln Tyr 200 Leu Gln Pro Phe Val Ser Asp Arg Asn Met Pro Ser Glu Leu Glu Tyr 215 220 Met Ile Val Ser Phe Arg Glu Pro His Met Tyr Leu Arg Gln Trp Asn 230 235 Asn Gly Ser Val Cys Gln Glu Ile Gln Phe Leu Ala Gln Ala Asp Cys 250 Lys Leu Leu Glu Cys Arg Asn Val Thr Met Gln Ser Val Val Lys Pro 260 265 Phe Ser Ile Phe Gly Gln Met Ala Val Ser Ser Asp Val Val Glu Lys 280 Leu Leu Asp Cys Thr Val Ile Val Asp Ser Val Phe Val Asn Leu Gly 295 300 Gln His Val Val His Ser Leu Asn Thr Ala Ile Gln Ala Trp Gln Gln 310 315 Asn Lys Cys Pro Glu Val Glu Glu Leu Val Phe Ser His Phe Val Ile 330

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Cys Asn Asp Thr Gln Glu Thr Leu Arg Phe Gly Gln Val Asp Thr Asp
                             345
          340
Glu Asn Ile Leu Leu Ala Ser Leu His Ser His Gln Tyr Ser Trp Arg
                                           365
     355
                        360
Ser His Lys Ser Pro Gln Leu Leu His Ile Cys Ile Glu Gly Trp Gly
           375
                                        380
Asn Trp Arg Trp Ser Glu Pro Phe Ser Val Asp His Ala Gly Thr Phe
                                   395
                 390
Ile Arg Thr Ile Gln Tyr Arg Gly Arg Thr Ala Ser Leu Ile Ile Lys
                                410
Val Gln Gln Leu Asn Gly Val Gln Lys Gln Ile Ile Cys Gly Arg
          420
                             425
Gln Ile Ile Cys Ser Tyr Leu Ser Gln Ser Ile Glu Leu Lys Val Val
                      440
     435
Gln His Tyr Ile Gly Gln Asp Gly Gln Ala Val Val Arg Glu His Phe
                              460
                    455
Asp Cys Leu Thr Ala Lys Gln Lys Leu Pro Ser Tyr Ile Leu Glu Asn
                            475
                470
Asn Glu Leu Thr Glu Leu Cys Val Lys Ala Lys Gly Asp Glu Asp Trp
                                490
              485
Ser Arg Asp Val Cys Leu Glu Ser Lys Ala Pro Glu Tyr Ser Ile Val
                            505
          500
Ile Gln Val Pro Ser Ser Asn Ser Ser Ile Ile Tyr Val Trp Cys Thr
                   520
      515
Val Leu Thr Leu Glu Pro Asn Ser Gln Val Gln Gln Arg Met Ile Val
                                      540
                     535
Phe Ser Pro Leu Phe Ile Met Arg Ser His Leu Pro Asp Pro Ile Ile
                                   555
                 550
Ile His Leu Glu Lys Arg Ser Leu Gly Leu Ser Glu Thr Gln Ile Ile
                               570
            565
Pro Gly Lys Gly Gln Glu Lys Pro Leu Gln Asn Ile Glu Pro Asp Leu
                            585
          580
Val His His Leu Thr Phe Gln Ala Arg Glu Glu Tyr Asp Pro Ser Asp
                600
                                           605
       595
Cys Ala Val Pro Ile Ser Thr Ser Leu Ile Lys Gln Ile Ala Thr Lys
                              620
             615
Val His Pro Gly Gly Thr Val Asn Gln Ile Leu Asp Glu Phe Tyr Gly
                  630
                                    635
Pro Glu Lys Ser Leu Gln Pro Ile Trp Pro Tyr Asn Lys Lys Asp Ser
                                                   655
                                650
              645
Asp Arg Asn Glu Gln Leu Ser Gln Trp Asp Ser Pro Met Arg Val Lys
                             665
           660
Leu Ser Ile Trp Lys Pro Tyr Val Arg Thr Leu Leu Ile Glu Leu Leu
                 . 680
                                          685
       675
Pro Trp Ala Leu Leu Ile Asn Glu Ser Lys Trp Asp Leu Trp Leu Phe
                                        700
                      695
Glu Gly Glu Lys Ile Val Leu Gln Val Pro Ala Gly Lys Ile Ile Ile
                                     715
                   710
Pro Pro Asn Phe Gln Glu Ala Phe Gln Ile Gly Ile Tyr Trp Ala Asn
                                 730
              725
Thr Asn Thr Val His Lys Ser Val Ala Ile Lys Leu Val His Asn Leu
                              745
           740
Thr Ser Pro Lys Trp Lys Asp Gly Gly Asn Gly Glu Val Val Thr Leu
                                         765
                         760
Asp Glu Glu Ala Phe Val Asp Thr Glu Ile Arg Leu Gly Ala Phe Pro
                                        780
                     775
Gly His Gln Lys Leu Cys Gln Phe Cys Ile Ser Ser Met Val Gln Gln
                                     795
               790
Gly Ile Gln Ile Ile Gln Ile Glu Asp Lys Thr Thr Ile Ile Asn Asn
                                 810
               805
Thr Pro Tyr Gln Ile Phe Tyr Lys Pro Gln Leu Ser Val Cys Asn Pro
                                     830
                             825
His Ser Gly Lys Glu Tyr Phe Arg Val Pro Asp Ser Ala Thr Phe Ser
                                             845
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Ile Cys Pro Gly Gly Glu Gln Pro Ala Met Lys Ser Ser Ser Leu Pro 855 860 850 Cys Trp Asp Leu Met Pro Asp Ile Ser Gln Ser Val Leu Asp Ala Ser 870 875 Leu Leu Gln Lys Gln Ile Met Leu Gly Phe Ser Pro Ala Pro Gly Ala 885 890 Asp Ser Ser Gln Cys Trp Ser Leu Pro Ala Ile Val Arg Pro Glu Phe 905 Pro Arg Gln Ser Val Ala Val Pro Leu Gly Asn Phe Arg Glu Asn Gly 915 920 925 Phe Cys Thr Arg Ala Ile Val Leu Thr Tyr Gln Glu His Leu Gly Val 935 940 Thr Tyr Leu Thr Leu Ser Glu Asp Pro Ser Pro Arg Val Ile Ile His 950 955 Asn Arg Cys Pro Val Lys Met Leu Ile Lys Glu Asn Ile Lys Asp Ile 965 970 975 Pro Lys Phe Glu Val Tyr Cys Lys Lys Ile Pro Ser Glu Cys Ser Ile 980 985 990 980 985 His His Glu Leu Tyr His Gln Ile Ser Ser Tyr Pro Asp Cys Lys Thr 995 1000 1005 Lys Asp Leu Leu Pro Ser Leu Leu Leu Arg Val Glu Pro Leu Asp Glu 1015 1020 Val Thr Thr Glu Trp Ser Asp Ala Ile Asp Ile Asn Ser Gln Gly Thr 1030 1035 Gln Val Val Phe Leu Thr Gly Phe Gly Tyr Val Tyr Val Asp Val Val 1045 1050 1055 His Gln Cys Gly Thr Val Phe Ile Thr Val Ala Pro Glu Gly Lys Ala 1060 1065 1070 Gly Pro Ile Leu Thr Asn Thr Asn Arg Ala Pro Glu Lys Ile Val Thr 1075 1080 Phe Lys Met Phe Ile Thr Gln Leu Ser Leu Ala Val Phe Asp Asp Leu 1100 1090 1095 Thr His His Lys Ala Ser Ala Glu Leu Leu Arg Leu Thr Leu Asp Asn 1105 . 1110 1115 Ile Phe Leu Cys Val Ala Pro Gly Ala Gly Pro Leu Pro Gly Glu Glu 1135 1125 1130 Pro Val Ala Ala Leu Phe Glu Leu Tyr Cys Val Glu Ile Cys Cys Gly 1140 1145 Asp Leu Gln Leu Asp Asn Gln Leu Tyr Asn Lys Ser Asn Phe His Phe 1155 1160 1165 Ala Val Leu Val Cys Gln Gly Glu Lys Ala Glu Pro Ile Gln Cys Ser 1170 1175 1180 Lys Met Gln Ser Leu Leu Ile Ser Asn Lys Glu Leu Glu Glu Tyr Lys 1195 1190 Glu Lys Cys Phe Ile Lys Leu Cys Ile Thr Leu Asn Glu Gly Lys Ser 1205 1210 1215 Ile Leu Cys Asp Ile Asn Glu Phe Ser Phe Glu Leu Lys Pro Ala Arg 1220 1225 1230 Leu Tyr Val Glu Asp Thr Phe Val Tyr Tyr Ile Lys Thr Leu Phe Asp 1235 1240 1245 Thr Tyr Leu Pro Asn Ser Arg Leu Ala Gly His Ser Thr His Leu Ser 1250 1255 1260 Gly Gly Lys Gln Val Leu Pro Met Gln Val Thr Gln His Ala Arg Ala 1265 1270 1275 Leu Val Asn Pro Val Lys Leu Arg Lys Leu Val Ile Gln Pro Val Asn 1285 1290 1295 Leu Leu Val Ser Ile His Ala Ser Leu Lys Leu Tyr Ile Ala Ser Asp 1310 1300 1305 His Thr Pro Leu Ser Phe Ser Val Phe Glu Arg Gly Pro Ile Phe Thr 1315 1320 1325 Thr Ala Arg Gln Leu Val His Ala Leu Ala Met His Tyr Ala Ala Gly 1340 1330 1335 Ala Leu Phe Arg Ala Gly Trp Val Val Gly Ser Leu Asp Ile Leu Gly 1355 1350

Ser Pro Ala Ser Leu Val Arg Ser Ile Gly Asn Gly Val Ala Asp Phe 1370 1375 1365 Phe Arg Leu Pro Tyr Glu Gly Leu Thr Arg Gly Pro Gly Ala Phe Val 1390 1380 1385 Ser Gly Val Ser Arg Gly Thr Thr Ser Phe Val Lys His Ile Ser Lys 1395 1400 1405 Gly Thr Leu Thr Ser Ile Thr Asn Leu Ala Thr Ser Leu Ala Arg Asn 1410 1415 1420 Met Asp Arg Leu Ser Leu Asp Glu Glu His Tyr Asn Arg Gln Glu Glu 1435 1430 Trp Arg Arg Gln Leu Pro Glu Ser Leu Gly Glu Gly Leu Arg Gln Gly 1450 1455 1445 Leu Ser Arg Leu Gly Ile Ser Leu Leu Gly Ala Ile Ala Gly Ile Val 1460 1470 1465 Asp Gln Pro Met Gln Asn Phe Gln Lys Thr Ser Glu Ala Gln Ala Ser 1475 1480 1485 Ala Gly His Lys Ala Lys Gly Val Ile Ser Gly Val Gly Lys Gly Ile 1490 1495 1500 Met Gly Val Phe Thr Lys Pro Ile Gly Gly Ala Ala Glu Leu Val Ser 1510 1515 1520 1505 Gln Thr Gly Tyr Gly Ile Leu His Gly Ala Gly Leu Ser Gln Leu Pro 1525 1530 Lys Gln Arg His Gln Pro Ser Asp Val His Ala Asp Gln Ala Pro Asn 1540 1545 1550 Ser His Val Lys Tyr Val Trp Lys Met Leu Gln Ser Leu Gly Arg Pro 1560 1565 1555 Glu Val His Met Ala Leu Asp Val Val Leu Val Arg Gly Ser Gly Gln 1575 1580 Glu His Glu Gly Cys Leu Leu Leu Thr Ser Glu Val Leu Phe Val Val 1595 1590 Ser Val Ser Glu Asp Thr Gln Gln Gln Ala Phe Pro Val Thr Glu Ile 1610 1615 1605 Asp Cys Ala Gln Asp Ser Lys Gln Asn Asn Leu Leu Thr Val Gln Leu 1620 1625 1630 Lys Gln Pro Arg Val Ala Cys Asp Val Glu Val Asp Gly Val Arg Glu 1635 1640 1645 Arg Leu Ser Glu Gln Gln Tyr Asn Arg Leu Val Asp Tyr Ile Thr Lys 1650 1655 1660 Thr Ser Cys His Leu Ala Pro Ser Cys Ser Ser Met Gln Ile Pro Cys 1670 1675 1680 1665 Pro Val Val Ala Ala Glu Pro Pro Pro Ser Thr Val Lys Thr Tyr His 1685 1690 Tyr Leu Val Asp Pro His Phe Ala Gln Val Phe Leu Ser Lys Phe Thr 1700 1705 Met Val Lys Asn Lys Ala Leu Arg Lys Gly Phe Pro 1724 1715 1720

<210> 2177 <211> 555 <212> PRT <213> Homo sapiens

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Ser Gly Ser Leu Thr Ser Leu Asp Ser Ser Val Phe Cys Ser Glu Gly
                 70
Glu Gly Glu Pro Leu Ala Leu Gly Asp Cys Phe Thr Val Asn Val Gly
                               90
Gly Ser Arg Phe Val Leu Ser Gln Gln Ala Leu Ser Cys Phe Pro His
Thr Arg Leu Gly Lys Leu Ala Val Val Ala Ser Tyr Arg Arg Pro
                     120
                                125
Gly Ala Leu Ala Ala Val Pro Ser Pro Leu Glu Leu Cys Asp Asp Ala
                             140
   130 135
Asn Pro Val Asp Asn Glu Tyr Phe Phe Asp Arg Ser Ser Gln Ala Phe
                                 155
Arg Tyr Val Leu His. Tyr Tyr Arg Thr Gly Arg Leu His Val Met Glu
             165
                              170
Gln Leu Cys Ala Leu Ser Phe Leu Gln Glu Ile Gln Tyr Trp Gly Ile
         180
                          185
                                            190
Asp Glu Leu Ser Ile Asp Ser Cys Cys Arg Asp Arg Tyr Phe Arg Arg
                      200
Lys Glu Leu Ser Glu Thr Leu Asp Phe Lys Lys Asp Thr Glu Asp Gln
           215 220
Glu Ser Gln His Glu Ser Glu Gln Asp Phe Ser Gln Gly Pro Cys Pro
                      235
                230
Thr Val Arg Gln Lys Leu Trp Asn Ile Leu Glu Lys Pro Gly Ser Ser
                              250
            245
Thr Ala Ala Arg Ile Phe Gly Val Ile Ser Ile Ile Phe Val Gly Val
                                           270
         260
                         265
Ser Ile Ile Asn Met Ala Leu Met Ser Ala Glu Leu Ser Trp Leu Asp
   275 280
                                        285
Leu Gln Leu Leu Glu Ile Leu Glu Tyr Val Cys Ile Ser Trp Phe Thr
         295
Gly Glu Phe Val Leu Arg Phe Leu Cys Val Arg Asp Arg Cys Arg Phe
                         315
       310
Leu Arg Lys Val Pro Asn Ile Ile Asp Leu Leu Ala Ile Leu Pro Phe
            325
                              330
Tyr Ile Thr Leu Leu Val Glu Ser Leu Ser Gly Ser Gln Thr Thr Gln
          340
                            345
Glu Leu Glu Asn Val Gly Ala His Cys Pro Gly Cys Leu Arg Leu Leu
                        360
Arg Ala Leu Arg Met Leu Lys Ala Trp Gly Arg His Ser Thr Gly Leu
                   375
                                   380
Arg Ser Leu Gly Met Thr Ile Thr Gln Cys Tyr Glu Glu Val Gly Leu
       390
                                 395
Leu Leu Phe Leu Ser Val Gly Ile Ser Ile Phe Ser Thr Val Glu
             405
                              410
Tyr Phe Ala Glu Gln Ser Ile Pro Asp Thr Thr Phe Thr Ser Val Pro
         420
                          425
Cys Ala Trp Trp Trp Ala Thr Thr Ser Met Thr Thr Val Gly Tyr Gly
      435
                      440
                                         445
Asp Ile Arg Pro Asp Thr Thr Thr Gly Lys Ile Val Ala Phe Met Cys
                  455
                                     460
Ile Leu Ser Gly Ile Leu Val Leu Ala Leu Pro Ile Ala Ile Ile Asn
                470
                                 475
Asp Arg Phe Ser Ala Cys Tyr Phe Thr Leu Lys Leu Lys Glu Ala Ala
                   490
            485
Val Arg Gln Arg Glu Ala Leu Lys Lys Leu Thr Lys Asn Ile Ala Thr
                                    510
          500
                           505
Asp Ser Tyr Ile Ser Val Asn Leu Arg Asp Val Tyr Ala Arg Ser Ile
                      520
Met Glu Met Leu Arg Leu Lys Gly Arg Glu Arg Ala Ser Thr Arg Ser
          535
Ser Gly Gly Asp Asp Phe Trp Phe
                550 552
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<210> 2178 <211> 1441 <212> PRT <213> Homo sapiens

<400> 2178 Gly Thr His Pro Ala Ser Ser Gly Pro Val Pro Leu Pro Pro Ala Ala 10 1 Val Ser Ala Ala Thr Arg Glu Glu Leu Gly Glu Pro Val Pro Phe Val 20 Thr Ala Ser Ser Gly Phe Gln Ser Met His Ser Ser Asn Pro Lys Val 40 35 Arg Ser Ser Pro Ser Gly Asn Thr Gln Ser Ser Pro Lys Ser Lys Gln 60 55 Glu Val Met Val Arg Pro Pro Thr Val Met Ser Pro Ser Gly Asn Pro 75 70 Gln Leu Asp Ser Lys Phe Ser Asn Gln Gly Lys Gln Gly Gly Ser Ala 90 85 Ser Gln Ser Gln Pro Ser Pro Cys Asp Ser Lys Ser Gly Gly His Thr 105 110 100 Pro Lys Ala Leu Pro Gly Pro Gly Gly Ser Met Gly Leu Lys Asn Gly 120 115 Ala Gly Asn Gly Ala Lys Gly Lys Gly Lys Arg Glu Arg Ser Ile Ser 130 135 140 Ala Asp Ser Phe Asp Gln Arg Asp Pro Gly Thr Pro Asn Asp Asp Ser 155 150 Asp Ile Lys Glu Cys Asn Ser Ala Asp His Ile Lys Ser Gln Asp Ser 165 170 175 Gln His Thr Pro His Ser Met Thr Pro Ser Asn Ala Thr Ala Pro Arg 190 180 185 Ser Ser Thr Pro Pro His Gly Gln Thr Thr Ala Thr Glu Pro Thr Pro 200 Ala Gln Lys Thr Pro Ala Lys Val Val Tyr Val Phe Ser Thr Glu Met . 215 220 Ala Asn Lys Ala Ala Glu Ala Val Leu Lys Gly Gln Val Glu Thr Ile 225 230 235 240 Val Ser Phe His Ile Gln Asn Ile Ser Asn Asn Lys Thr Glu Arg Ser 255 250 245 Thr Ala Pro Leu Asn Thr Gln Ile Ser Ala Leu Arg Asn Asp Pro Lys 270 265 260 Pro Leu Pro Gln Gln Pro Pro Ala Pro Ala Asn Gln Asp Gln Asn Ser 285 280 275 Ser Gln Asn Thr Arg Leu Gln Pro Thr Pro Pro Ile Pro Ala Pro Ala 295 300 Pro Lys Pro Ala Ala Pro Pro Arg Pro Leu Asp Arg Glu Ser Pro Gly 310 315 320 Val Glu Asn Lys Leu Ile Pro Ser Val Gly Ser Pro Ala Ser Ser Thr 325 330 Pro Leu Pro Pro Asp Gly Thr Gly Pro Asn Ser Thr Pro Asn Asn Arg 345 Ala Val Thr Pro Val Ser Gln Gly Ser Asn Ser Ser Ser Ala Asp Pro 365 360 355 Lys Ala Pro Pro Pro Pro Pro Val Ser Ser Gly Glu Pro Pro Thr Leu 370 375 380 Gly Glu Asn Pro Asp Gly Leu Ser Gln Glu Gln Leu Glu His Arg Glu 390 395 Arg Ser Leu Gln Thr Leu Arg Asp Ile Gln Arg Met Leu Phe Pro Asp 410 405 Glu Lys Glu Phe Thr Gly Ala Gln Ser Gly Gly Pro Gln Gln Asn Pro 425 430 420 Gly Val Leu Asp Gly Pro Gln Lys Lys Pro Glu Gly Pro Ile Gln Ala 440

Met Met Ala Gln Ser Gln Ser Leu Gly Lys Gly Pro Gly Pro Arg Thr Asp Val Gly Ala Pro Phe Gly Pro Gln Gly His Arg Asp Val Pro Phe Ser Pro Asp Glu Met Val Pro Pro Ser Met Asn Ser Gln Ser Gly Thr Ile Gly Pro Asp His Leu Asp His Met Thr Pro Glu Gln Ile Ala Trp . 505 Leu Lys Leu Gln Gln Glu Phe Tyr Glu Glu Lys Arg Arg Lys Pro Glu Gln Val Val Gln Gln Cys Ser Leu Gln Asp Met Met Val His Gln **5** His Gly Pro Arg Gly Val Val Arg Gly Pro Pro Pro Pro Tyr Gln Met Thr Pro Ser Glu Gly Trp Ala Pro Gly Gly Thr Glu Pro Phe Ser Asp Gly Ile Asn Met Pro His Ser Leu Pro Pro Arg Gly Met Ala Pro His Pro Asn Met Pro Gly Ser Gln Met Arg Leu Pro Gly Phe Ala Gly Met Ile Asn Ser Glu Met Glu Gly Pro Asn Val Pro Asn Pro Ala Ser Arg Pro Gly Leu Ser Gly Val Ser Trp Pro Asp Asp Val Pro Lys Ile Pro Asp Gly Arg Asn Phe Pro Pro Gly Gln Gly Ile Phe Ser Gly Pro Gly Arg Gly Glu Arg Phe Pro Asn Pro Gln Gly Leu Ser Glu Glu Met Phe Gln Gln Gln Leu Ala Glu Lys Gln Leu Gly Leu Pro Pro Gly Met Ala Met Glu Gly Ile Arg Pro Ser Met Glu Met Asn Arg Met Ile Pro Gly Ser Gln Arg His Met Glu Pro Gly Asn Asn Pro Ile Phe Pro Arg Ile Pro Val Glu Gly Pro Leu Ser Pro Ser Arg Gly Asp Phe Pro Lys Gly Ile Pro Pro Gln Met Gly Pro Gly Arg Glu Leu Glu Phe Gly Met Val Pro Ser Gly Met Lys Gly Asp Val Asn Leu Asn Val Asn Met Gly Ser Asn Ser Gln Met Ile Pro Gln Lys Met Arg Glu Ala Gly Ala Gly Pro Glu Glu Met Leu Lys Leu Arg Pro Gly Gly Ser Asp Met Leu Pro Ala Gln Gln Lys Met Val Pro Leu Pro Phe Gly Glu His Pro Gln Glu Tyr Gly Met Gly Pro Arg Pro Phe Leu Pro Met Ser Gln Gly Pro Gly Ser Asn Ser Gly Leu Arg Asn Leu Arg Glu Pro Ile Gly Pro Asp Gln Arg Thr Asn Ser Arg Leu Ser His Met Pro Pro Leu Pro Leu Asn Pro Ser Ser Asn Pro Thr Ser Leu Asn Thr Ala Pro Pro Val Gln Arg Gly Leu Gly Arg Lys Pro Leu Asp Ile Ser Val Ala Gly Ser Gln Val His Ser Pro Gly Ile Asn Pro Leu Lys Ser Pro Thr Met His Gln Val Gln Ser Pro Met Leu Gly Ser Pro Ser Gly Asn Leu Lys Ser Pro Gln Thr Pro Ser Gln Leu Ala Gly Met Leu Ala Gly Pro Ala Ala Ala Ser Ile Lys Ser Pro Pro Val Leu Gly Ser Ala Ala Ala Ser Pro Val His 

Leu Lys Ser Pro Ser Leu Pro Ala Pro Ser Pro Gly Trp Thr Ser Ser 970 Pro Glu Pro Pro Leu Gln Ser Pro Gly Ile Pro Pro Asn His Lys Ala 980 985 990 Pro Leu Thr Met Ala Ser Pro Ala Met Leu Gly Asn Val Glu Ser Gly 995 1000 1005 Gly Pro Pro Pro Pro Thr Ala Ser Gln Pro Ala Ser Val Asn Ile Pro 1010 1015 1020 Gly Ser Leu Pro Ser Ser Thr Pro Tyr Thr Met Pro Pro Glu Pro Thr 1025 1030 1035 1040 Leu Ser Gln Asn Pro Leu Ser Ile Met Met Ser Arg Met Ser Lys Phe 1045 1050 1055 Ala Met Pro Ser Ser Asn Pro Gly Tyr Asn His Asp Ala Ile Lys Thr 1060 1065 1070 Val Ala Ser Ser Asp Asp Asp Ser Pro Pro Ala Arg Ser Pro Asn Leu 1075 1080 1085 Pro Ser Met Asn Asn Met Pro Gly Met Gly Ile Asn Thr Gln Asn Pro 1090 1095 1100 Arg Ile Ser Gly Pro Asn Pro Val Val Pro Met Pro Thr Leu Ser Pro 1105 1110 1115 Met Gly Met Thr Gln Pro Leu Ser His Ser Asn Gln Met Pro Ser Pro 1135 1125 1130 Asn Ala Val Gly Pro Asn Ile Pro Pro His Gly Val Pro Met Gly Pro 1140 1145 1150 Gly Leu Met Ser His Asn Pro Ile Met Gly His Gly Ser Gln Glu Pro 1155 1160 1165 Pro Met Val Pro Gln Gly Arg Met Gly Phe Pro Gln Gly Phe Pro Pro 1175 1180 1170 Val Gln Ser Pro Pro Gln Gln Val Pro Phe Pro His Asn Gly Pro Ser 1185 1190 1195 Gly Gly Gln Gly Ser Phe Pro Gly Gly Met Gly Phe Pro Gly Glu Gly 1205 1210 1215 Pro Leu Gly Arg Pro Ser Asn Leu Pro Gln Ser Ser Ala Asp Ala Ala 1220 1225 1230 Leu Cys Lys Pro Gly Gly Pro Gly Gly Pro Asp Ser Phe Thr Val Leu 1235 1240 1245 Gly Asn Ser Met Pro Ser Val Phe Thr Asp Pro Asp Leu Gln Glu Val 1250 1255 1260 Ile Arg Pro Gly Ala Thr Gly Ile Pro Glu Phe Asp Leu Ser Arg Ile 1270 1275 Ile Pro Ser Glu Lys Pro Ser Gln Thr Leu Gln Tyr Phe Pro Arg Gly 1290 1295 1285 Glu Val Pro Gly Arg Lys Gln Pro Gln Gly Pro Gly Pro Gly Phe Ser 1310 1300 1305 His Met Gln Gly Met Met Gly Glu Gln Ala Pro Arg Met Gly Leu Ala 1315 1320 1325 Leu Pro Gly Met Gly Gly Pro Gly Pro Val Gly Thr Pro Asp Ile Pro 1335 1340 Leu Gly Thr Ala Pro Ser Met Pro Gly His Asn Pro Met Arg Pro Pro 1350 1355 Ala Phe Leu Gln Gln Gly Met Met Gly Pro His His Arg Met Met Ser 1365 1370 Pro Ala Gln Ser Thr Met Pro Gly Gln Pro Thr Leu Met Ser Asn Pro 1380 1385 1390 Ala Ala Val Gly Met Ile Pro Gly Lys Asp Arg Gly Pro Ala Gly 1395 1400 1405 Leu Tyr Thr His Pro Gly Pro Val Gly Ser Pro Gly Met Met Ser 1415 1420 1410 Met Gln Gly Met Met Gly Pro Asn Arg Thr Ser 1430 . 1435

<211> 145 <212> PRT <213> Homo sapiens

<400> 2179 Ala Ser Phe Phe Asn Phe Ser Ile Cys Ile Cys Lys Ile Ile Leu Glu 10 Val Gly Pro Pro Val Gly His Pro Ala His Asp Asp Val Gly Gly Arg 25 20 His Gly Pro Gly Gly Arg Gly Ser Arg Ser Pro Arg Ser Leu Gln Cys 40 Ala Pro Gly Gly Gly Arg Arg Ser Gly Cys Pro Ala Gly Ser Ser Pro 55 Ala Ser Thr Cys Pro Pro Ser Pro Gly Gly Ser Gly Ala Asp Arg Phe 70 75 Gly Pro Ser Pro Pro Pro Pro Ser Arg Glu Ala Ala Pro Thr Ala Gly 85 90 Ala Ala Ala Ser Ser Thr Ser Ser Gly Ala Ser Cys Pro Pro Val Pro 100 105 Ala Ser Ser Arg Trp Gly Val Arg Ser Arg Thr Arg Ser Gly Ser Gly 125 120 Gly Glu Arg Glu Pro Arg Asp Arg Pro Ser Glu Arg Pro Arg Leu Val 130 · 135

<210> 2180 <211> 643 <212> PRT <213> Homo sapiens

<400> 2180 Leu Pro Glu Arg Ala Phe Gly Pro Arg Thr Pro Arg Ala Pro Arg Arg 10 Arg Arg Arg Leu Leu Leu Ser Pro Pro Pro Arg Pro Pro Pro Pro 20 25 Leu Asp Arg Glu Pro Arg Ala Pro Gly Pro Trp Leu Cys Pro Ser Arg 35 40 45 Ala Gly Thr Ala Gln Asp Pro Ala Arg Ile Arg Glu Arg Arg Gly Arg 55 Val Ala Gly Gly Ala Ala Gly Pro Ala Met Glu Leu Arg Ala Arg Gly 70 75 · Trp Trp Leu Leu Cys Ala Ala Ala Leu Val Ala Cys Ala Arg Gly 85 90 Asp Pro Ala Ser Lys Ser Arg Ser Cys Gly Glu Val Arg Gln Ile Tyr 100 105 Gly Ala Lys Gly Phe Ser Ser Ser Asp Val Pro Gln Ala Glu Ile Ser 120 Gly Glu His Leu Arg Ile Cys Pro Gln Gly Tyr Thr Cys Cys Thr Ser 135 140 Glu Met Glu Glu Asn Leu Ala Asn Arg Ser His Ala Glu Leu Glu Thr 150 155 Ala Leu Arg Asp Ser Ser Arg Val Leu Gln Ala Met Leu Ala Thr Gln 170 Leu Arg Ser Phe Asp Asp His Phe Gln His Leu Leu Asn Asp Ser Glu 180 185 Arg Thr Leu Gln Ala Thr Phe Pro Gly Ala Phe Gly Glu Leu Tyr Thr 200 205 Gln Asn Ala Arg Ala Phe Arg Asp Leu Tyr Ser Glu Leu Arg Leu Tyr 215

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Tyr Arg Gly Ala Asn Leu His Leu Glu Glu Thr Leu Ala Glu Phe Trp
                  230
                                    235
Ala Arg Leu Leu Glu Arg Leu Phe Lys Gln Leu His Pro Gln Leu Leu
              245
                               250
                                                 255
Leu Pro Asp Asp Tyr Leu Asp Cys Leu Gly Lys Gln Ala Glu Ala Leu
          260
                          265
                                             270
Arg Pro Phe Gly Glu Ala Pro Arg Glu Leu Arg Leu Arg Ala Thr Arg
                                 285
               280
Ala Phe Val Ala Ala Arg Ser Phe Val Gln Gly Leu Gly Val Ala Ser
                     295 · 300
Asp Val Val Arg Lys Val Ala Gin Val Pro Leu Gly Pro Glu Cys Ser
                                   315
                310
Arg Ala Val Ile Glu Ala Gly Ser Tyr Cys Ala Leu His Cys Val Gly
                               330
             325
Val Pro Gly Ala Arg Pro Cys Pro Asp Tyr Cys Arg Asn Val Leu Lys
                       345
          340
Gly Cys Leu Ala Asn Gln Ala Asp Leu Asp Ala Glu Trp Arg Asn Leu
355 360 365
Leu Asp Ser Met Val Leu Ile Thr Asp Lys Phe Trp Gly Thr Ser Gly
                     375
Val Glu Ser Val Ile Gly Ser Val His Thr Trp Leu Ala Glu Ala Ile
               390
                                 395
Asn Ala Leu Gln Asp Asn Arg Asp Thr Leu Thr Ala Lys Val Ile Gln
                               410
             405
Gly Cys Gly Asn Pro Lys Val Asn Pro Gln Gly Pro Gly Pro Glu Glu
          420
                            425
                                              430
Lys Arg Arg Arg Gly Lys Leu Ala Pro Arg Glu Arg Pro Pro Ser Gly
                                          445
                       440
Thr Leu Glu Lys Leu Val Ser Glu Ala Lys Ala Gln Leu Arg Asp Val
                    455
                                       460
Gln Asp Phe Trp Ile Ser Leu Pro Gly Thr Leu Cys Ser Glu Lys Met
                                  475
               470
Ala Leu Ser Thr Ala Ser Asp Asp Arg Cys Trp Asn Gly Met Ala Arg
                                490
             485
Gly Arg Tyr Leu Pro Glu Val Met Gly Asp Gly Leu Ala Asn Gln Ile
                            505
Asn Asn Pro Glu Val Glu Val Asp Ile Thr Lys Pro Asp Met Thr Ile
                        520
                                  525
Arg Gln Gln Ile Met Gln Leu Lys Ile Met Thr Asn Arg Leu Arg Ser
                  535
                                    540
Ala Tyr Asn Gly Asn Asp Val Asp Phe Gln Asp Ala Ser Asp Asp Gly
               550
                                   555
Ser Gly Ser Gly Ser Gly Asp Gly Cys Leu Asp Asp Leu Cys Gly Arg
             565
                               570
                                                 575 ·
Lys Val Ser Arg Lys Ser Ser Ser Ser Arg Thr Pro Leu Thr His Ala
          580
                            585
Leu Pro Gly Leu Ser Glu Gln Glu Gly Gln Lys Thr Ser Ala Ala Ser
                        600
                                         605
     595
Cys Pro Gln Pro Pro Thr Phe Leu Leu Pro Leu Leu Phe Leu Ala
         615
Leu Thr Val Ala Arg Pro Arg Trp Arg
625
                 630
                          633
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<210> 2181
<211> 507
<212> PRT
<213> Homo sapiens
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<400> 2181
Ala Ser Arg His Gly Met Thr Pro Gly Ala Leu Leu Met Leu Leu Gly
1 5 10 15

Ala Leu Gly Pro Pro Leu Ala Pro Gly Val Arg Gly Ser Glu Ala Glu 25 Gly Arg Leu Arg Glu Lys Leu Phe Ser Gly Tyr Asp Ser Ser Val Arg Pro Ala Arg Glu Val Gly Asp Arg Val Arg Val Ser Val Gly Leu Ile Leu Ala Gln Leu Ile Ser Leu Asn Glu Lys Asp Glu Glu Met Ser Thr 75 Lys Val Tyr Leu Asp Leu Glu Trp Thr Asp Tyr Arg Leu Ser Trp Asp 85 90 Pro Ala Glu His Asp Gly Ile Asp Ser Leu Arg Ile Thr Ala Glu Ser 105 Val Trp Leu Pro Asp Val Val Leu Leu Asn Asn Asn Asp Gly Asn Phe 120 125 Asp Val Ala Leu Asp Ile Ser Val Val Val Ser Ser Asp Gly Ser Val 135 140 Arg Trp Gln Pro Pro Gly Ile Tyr Arg Ser Ser Cys Ser Ile Gln Val 150 155 Thr Tyr Phe Pro Phe Asp Trp Gln Asn Cys Thr Met Val Phe Ser Ser 165 170 175 Tyr Ser Tyr Asp Ser Ser Glu Val Ser Leu Gln Thr Gly Leu Gly Pro 180 185 Asp Gly Gln Gly His Gln Glu Ile His Ile His Glu Gly Thr Phe Ile 200 205 Glu Asn Gly Gln Trp Glu Asn Ile His Lys Pro Ser Arg Leu Ile Gln 215 220 Pro Pro Gly Asp Pro Arg Gly Gly Arg Glu Gly Gln Arg Gln Glu Val 230 235 Ile Phe Tyr Leu Ile Ile Arg Arg Lys Pro Leu Phe Tyr Leu Val Asn 250 Val Ile Ala Pro Cys Ile Leu Ile Thr Leu Leu Ala Ile Phe Val Phe 265 Tyr Leu Pro Pro Asp Ala Gly Glu Lys Met Gly Leu Ser Ile Phe Ala 280 Leu Leu Thr Leu Thr Val Phe Leu Leu Leu Leu Ala Asp Lys Val Pro 295 300 Glu Thr Ser Leu Ser Val Pro Ile Ile Ile Lys Tyr Leu Met Phe Thr 310 315 Met Val Leu Val Thr Phe Ser Val Ile Leu Ser Val Val Val Leu Asn 325 330 Leu His His Arg Ser Pro His Thr His Gln Met Pro Leu Trp Val Arg 340 345 350 Gln Ile Phe Ile His Lys Leu Pro Leu Tyr Leu Arg Leu Lys Arg Pro 355 360 Lys Pro Glu Arg Asp Leu Met Pro Glu Pro Pro His Cys Ser Ser Pro 375 380 Gly Ser Gly Trp Gly Arg Gly Thr Asp Glu Tyr Phe Ile Arg Lys Pro 390 395 Pro Ser Asp Phe Leu Phe Pro Lys Pro Asn Arg Phe Gln Pro Glu Leu 405 410 Ser Ala Pro Asp Leu Arg Arg Phe Ile Asp Gly Pro Asn Arg Ala Val 420 425 Ala Leu Leu Pro Glu Leu Arg Glu Val Val Ser Ser Ile Ser Tyr Ile 440 Ala Arg Gln Leu Gln Glu Gln Glu Asp His Asp Ala Leu Lys Glu Asp 455 Trp Gln Phe Val Ala Met Val Val Asp Arg Leu Phe Leu Trp Thr Phe 470 . 475 Ile Ile Phe Thr Ser Val Gly Thr Leu Val Ile Phe Leu Asp Ala Thr 485 490 Tyr His Leu Pro Pro Pro Asp Pro Phe Pro 500 505 506

<210> 2182 <211> 337 <212> PRT <213> Homo sapiens

<400> 2182 Glu Thr Met Ala Lys Asn Pro Pro Glu Asn Cys Glu Asp Cys His Ile Leu Asn Ala Glu Ala Phe Lys Ser Lys Lys Ile Cys Lys Ser Leu Lys Ile Cys Gly Leu Val Phe Gly Ile Leu Ala Leu Thr Leu Ile Val Leu 40 Phe Trp Gly Ser Lys His Phe Trp Pro Glu Val Pro Lys Lys Ala Tyr 55 Asp Met Glu His Thr Phe Tyr Ser Asn Gly Glu Lys Lys Lys Ile Tyr 70 65 Met Glu Ile Asp Pro Val Thr Arg Thr Glu Ile Phe Arg Ser Gly Asn 85 90 Gly Thr Asp Glu Thr Leu Glu Val His Asp Phe Lys Asn Gly Tyr Thr 105 110 100 Gly Ile Tyr Phe Val Gly Leu Gln Lys Cys Phe Ile Lys Thr Gln Ile 120 125 Lys Val Ile Pro Glu Phe Ser Glu Pro Glu Glu Glu Ile Asp Glu Asn 135 140 Glu Glu Ile Thr Thr Thr Phe Phe Glu Gln Ser Val Ile Trp Val Pro 150 155 Ala Glu Lys Pro Ile Glu Asn Arg Asp Phe Leu Lys Asn Ser Lys Ile 165 170 175 Leu Glu Ile Cys Asp Asn Val Thr Met Tyr Trp Ile Asn Pro Thr Leu 180 185 190 Ile Ser Gly Thr Phe Ala Lys Gln Leu His His Asn Phe Ala Phe Ile 195 200 Ile Leu Val Ser Glu Leu Gln Asp Phe Glu Glu Glu Gly Glu Asp Leu 210 215 220 His Phe Pro Ala Asn Glu Lys Lys Gly Ile Glu Gln Asn Glu Gln Trp 230 235 240 Val Val Pro Gln Val Lys Val Glu Lys Thr Arg His Ala Arg Gln Ala 2,50 255 245 Ser Glu Glu Glu Leu Pro Ile Asn Asp Tyr Thr Glu Asn Gly Ile Glu 265 270 Phe Asp Pro Met Leu Asp Glu Arg Gly Tyr Cys Cys Ile Tyr Cys Arg 275 280 . . 285 Arg Gly Asn Arg Tyr Cys Arg Arg Val Cys Glu Pro Leu Leu Gly Tyr 295 300 Tyr Pro Tyr Pro Tyr Cys Tyr Gln Gly Gly Arg Val Ile Cys Arg Val 305 310 315 Ile Met Pro Cys Asn Trp Trp Val Ala Arg Met Leu Gly Arg Val 330

<210> 2183 <211> 162 <212> PRT <213> Homo sapiens

Val Met Glu Ser Lys Glu Glu Arg Ala Leu Asn Asn Leu Ile Val Glu 40 Asn Val Asn Gln Glu Asn Asp Glu Lys Asp Glu Lys Glu Gln Val Ala Asn Lys Gly Glu Pro Leu Ala Leu Pro Leu Asn Val Ser Glu Tyr Cys 70 Val Pro Arg Gly Asn Arg Arg Phe Arg Val Arg Gln Pro Ile Leu 85 90 95 85 90 Gln Tyr Arg Trp Asp Ile Met His Arg Leu Gly Glu Pro Gln Ala Arg 100 105 Met Arg Glu Glu Asn Met Glu Arg Ile Gly Glu Glu Val Arg Gln Leu 115 120 Met Glu Lys Leu Arg Glu Lys Gln Leu Ser His Ser Leu Arg Ala Val 135 140 Ser Thr Asp Pro Pro His His Asp His His Asp Glu Phe Cys Leu Met Pro 161

<210> 2184 <211> 674 <212> PRT <213> Homo sapiens

<400> 2184 Pro Asn Gly Val Ala Leu Leu His Leu Pro Gly Ala Ala Val Ile Pro 10 Asn Thr Asn Tyr Met Phe Gln Asp Ala Leu Gly Gly Arg Ser Arg Gly 20 25 Ser Arg Glu Glu Ser Pro Ala Pro Ser Arg Ala Pro Ala Ser Ala Ser Leu Trp Arg Arg Leu Val Val Val Glu Ala Lys Met Ala Ala His Ala 55 Ala Ala Ala Gln Ala Ala Ala Gln Ala Ala His Ala Glu Ala 70 75 Ala Asp Ser Trp Tyr Leu Ala Leu Leu Gly Phe Ala Glu His Phe Arg 85 90 Thr Ser Ser Pro Pro Lys Ile Arg Leu Cys Val His Cys Leu Gln Ala 105 Val Phe Pro Phe Lys Pro Pro Gln Arg Ile Glu Ala Arg Thr His Leu 120 125 Gln Leu Gly Ser Val Leu Tyr His His Thr Lys Asn Ser Glu Gln Ala 135 140 Arg Ser His Leu Glu Lys Ala Trp Leu Ile Ser Gln Gln Ile Pro Gln 150 155 Phe Glu Asp Val Lys Phe Glu Ala Ala Ser Leu Leu Ser Glu Leu Tyr 170 165 Cys Gln Glu Asn Ser Val Asp Ala Ala Lys Pro Leu Leu Arg Lys Ala 190 180 185 Ile Gln Ile Ser Gln Gln Thr Pro Tyr Trp His Cys Arg Leu Leu Phe 205 195 200 Gln Leu Ala Gln Leu His Thr Leu Glu Lys Asp Leu Val Ser Ala Cys 215 220 Asp Leu Leu Gly Val Gly Ala Glu Tyr Ala Arg Val Val Gly Ser Glu 225 230 235 Tyr Thr Arg Ala Leu Phe Leu Leu Ser Lys Gly Met Leu Leu Met 245 250 Glu Arg Lys Leu Gln Glu Val His Pro Leu Leu Thr Leu Cys Gly Gln 265 270 260 Ile Val Glu Asn Trp Gln Gly Asn Pro Ile Gln Lys Glu Ser Leu Arg 280

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Val Phe Phe Leu Val Leu Gln Val Thr His Tyr Leu Asp Ala Gly Gln
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Val Lys Ser Val Lys Pro Cys Leu Lys Gln Leu Gln Gln Cys Ile Gln
                             315
                310
Thr Ile Ser Thr Leu His Asp Asp Glu Ile Leu Pro Ser Asn Pro Ala
                           330
Asp Leu Phe His Trp Leu Pro Lys Glu His Met Cys Val Leu Val Tyr
                         345 350
        340
Leu Val Thr Val Met His Ser Met Gln Ala Gly Tyr Leu Glu Lys Ala
                                        365
     355
                      360
Gln Lys Tyr Thr Asp Lys Ala Leu Met Gln Leu Glu Lys Leu Lys Met
                  375
                                    380
Leu Asp Cys Ser Pro Ile Leu Ser Ser Phe Gln Val Ile Leu Leu Glu
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                               395
His Ile Ile Met Cys Arg Leu Val Thr Gly His Lys Ala Thr Ala Leu
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                     410
Gln Glu Ile Ser Gln Val Cys Gln Leu Cys Gln Gln Ser Pro Arg Leu
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                         425
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Phe Ser Asn His Ala Ala Gln Leu His Thr Leu Leu Gly Leu Tyr Cys
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Val Ser Val Asn Cys Met Asp Asn Ala Glu Ala Gln Phe Thr Thr Ala
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Leu Arg Leu Thr Asn His Gln Glu Leu Trp Ala Phe Ile Val Thr Asn
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Leu Ala Ser Val Tyr Ile Arg Glu Gly Asn Arg His Gln Glu Val Val
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Leu Tyr Ser Leu Leu Glu Arg Ile Asn Pro Asp His Ser Phe Pro Val
                                   510
                          505
         500
Ser Ser His Cys Leu Arg Ala Ala Ala Phe Tyr Val Arg Gly Leu Phe
      515 520
Ser Phe Phe Gln Gly Arg Tyr Asn Glu Ala Lys Arg Phe Leu Arg Glu
                   535
                                    540
Thr Leu Lys Met Ser Asn Ala Glu Asp Leu Asn Arg Leu Thr Ala Cys
                              555
                550
Ser Leu Val Leu Leu Gly His Ile Phe Tyr Val Leu Gly Asn His Arg
                      570 575
            565
Glu Ser Asn Asn Met Val Val Pro Ala Met Gln Leu Ala Ser Lys Ile
    580
Pro Asp Met Ser Val Gln Leu Trp Ser Ser Ala Leu Leu Arg Asp Leu
      595 600
Asn Lys Ala Cys Gly Asn Ala Met Asp Ala His Glu Ala Ala Gln Met
                                     620
                  615
His Gln Asn Phe Ser Gln Gln Leu Leu Gln Asp His Ile Glu Ala Cys
                         635
                630
Ser Leu Pro Glu His Asn Leu Ile Thr Trp Thr Asp Gly Pro Pro Pro
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                       650
             645
Val Gln Phe Gln Ala Gln Asn Gly Pro Asn Thr Ser Leu Ala Ser Leu
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Leu
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<210> 2185 <211> 312 <212> PRT <213> Homo sapiens

<400> 2185 Pro Thr Arg Arg Pro Ile Leu Pro Leu Thr Ser Pro Lys Ala Ile Ser 5 10 Val Pro Ser Pro Leu Gln Gly Lys Gln His Thr Leu Val Lys Ser Cys 25

Leu Ser Val Ser Gly Ile Gly Gly Phe Leu Val Ser Leu Ser Ser Arg Met Lys Leu Gln Thr Leu Ala Val Ser Val Thr Ala Leu Lys Phe Trp Ser Ala Tyr Val Pro Cys Gln Thr Gln Asp Arg Asp Ala Leu Arg Leu 65 70 75 80 Thr Leu Glu Gln Ile Asp Leu Ile Arg Arg Met Cys Ala Ser Tyr Ser 85 90 95 90 Glu Leu Glu Leu Val Thr Ser Ala Lys Ala Leu Asn Asp Thr Gln Lys 100 105 Leu Ala Cys Leu Ile Gly Val Glu Gly Gly His Ser Leu Asp Asn Ser 120 . 125 115 Leu Ser Ile Leu Arg Thr Phe Tyr Met Leu Gly Val Arg Tyr Leu Thr 135 140 Leu Thr His Thr Cys Asn Thr Pro Trp Ala Glu Ser Ser Ala Lys Gly 150 155 Val His Ser Phe Tyr Asn Asn Ile Ser Gly Leu Thr Asp Phe Gly Glu 165 170 175 Lys Val Val Ala Glu Met Asn Arg Leu Gly Met Met Val Asp Leu Ser 190 185 His Val Ser Asp Ala Val Ala Arg Arg Ala Leu Glu Val Ser Gln Ala 200 . 205 . 195 Pro Val Ile Phe Ser His Ser Ala Ala Arg Gly Val Cys Asn Ser Ala 215 220 Arg Asn Val Pro Asp Asp Ile Leu Gln Leu Glu Glu Glu Arg Trp 230 235 Ala Phe Val Met Val Ser Leu Phe His Gly Glu Leu Ile Gln Trp Gln 245 250 Pro Ile Arg Pro Met Cys Ser Thr Val Ala Asp His Phe Asp His Ile 265 260 270 Lys Ala Val Ile Gly Ser Lys Phe Ile Gly Ile Gly Gly Asp Tyr Asp 275 280 285 Gly Ala Gly Lys Tyr Arg Lys Lys Thr Thr Cys Lys Ala Pro Trp Arg 295 Thr Ser Ser Arg Met Ser Ser 310 311

<210> 2186 <211> 103 <212> PRT <213> Homo sapiens

<210> 2187

<211> 544 <212> PRT <213> Homo sapiens

<400> 2187 Val Leu Arg Gly Gln Arg Gly Pro Ala Gly Gly Leu Ala Glu Glu Arg Arg Arg Gly Arg Asn Glu Trp Arg Ile His Asp Val Thr Thr Ala Pro Phe Pro Gly Leu Val Gln Arg Arg Ser Arg Leu Leu Ile Val Ser Gln Val Arg Tyr Phe Leu Lys Asn Lys Val Ser Pro Asp Leu Cys Asn Glu
50 60 Asp Gly Leu Thr Ala Leu His Gln Cys Cys Ile Asp Asn Phe Glu Glu Ile Val Lys Leu Leu Ser His Gly Ala Asn Val Asn Ala Lys Asp Asn Glu Leu Trp Thr Pro Leu His Ala Ala Ala Thr Cys Gly His Ile Asn Leu Val Lys Ile Leu Val Gln Tyr Gly Ala Asp Leu Leu Ala Val Asn Ser Asp Gly Asn Met Pro Tyr Asp Leu Cys Glu Asp Glu Pro Thr Leu Asp Val Ile Glu Thr Cys Met Ala Tyr Gln Gly Ile Thr Gln Glu Lys Ile Asn Glu Met Arg Val Ala Pro Glu Gln Gln Met Ile Ala Asp Ile His Cys Met Ile Ala Ala Gly Gln Asp Leu Asp Trp Ile Asp Ala Gln Gly Ala Thr Leu Leu His Ile Ala Gly Ala Asn Gly Tyr Leu Arg Ala Ala Glu Leu Leu Leu Asp His Gly Val Arg Val Asp Val Lys Asp Trp Asp Gly Trp Glu Pro Leu His Ala Ala Ala Phe Trp Gly Gln Met Gln Met Ala Glu Leu Leu Val Ser His Gly Ala Asn Leu Asn Ala Arg Thr Ser Met Asp Glu Met Pro Ile Asp Leu Cys Glu Glu Glu Glu Phe Lys Val Leu Leu Leu Glu Leu Lys His Lys His Asp Val Ile Met Lys Ser Gln Leu Arg His Lys Ser Ser Leu Ser Arg Arg Thr Ser His Arg Gln Ala Ser Ser Val Gly Lys Val Val Arg Arg Thr Gln Pro Val Gly Thr Gly Pro Asn Leu Tyr Arg Lys Glu Tyr Glu Gly Glu Glu Ala Ile Leu Trp Gln Arg Ser Ala Ala Glu Asp Gln Arg Thr Ser Thr Tyr Asn Gly Asp Ile Arg Glu Thr Arg Thr Asp Gln Glu Asn Lys Asp Pro Asn Pro Arg Leu Glu Lys Pro Val Leu Leu Ser Glu Phe Pro Thr Lys Ile Pro Arg Gly Glu Leu Asp Met Pro Val Glu Asn Gly Leu Arg Ala Pro Val Ser Ala Tyr Gln Tyr Ala Leu Ala Asn Gly Asp Val Trp Lys Val His Glu Val Pro Asp Tyr Ser Met Ala Tyr Gly Asn Pro Gly Val Ala Asp Ala Thr Pro Pro Trp Ser Ser Tyr Lys Glu Gln Ser Pro Gln Thr Leu Leu Glu Leu Lys Arg Gln Arg Ala Ala Ala Lys Leu Leu Ser His 

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<210> 2188 <211> 1851 <212> PRT <213> Homo sapiens

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<400> 2188 Ala Gly Pro Leu Glu Pro Arg Val Gln Gly Ala Met Ala Leu Gln Leu 5 . 10 Trp Ala Leu Thr Leu Leu Gly Leu Leu Gly Ala Gly Ala Ser Leu Arg 20 25 Pro Arg Lys Leu Asp Phe Phe Arg Ser Glu Lys Glu Leu Asn His Leu 40 Ala Val Asp Glu Ala Ser Gly Val Val Tyr Leu Gly Ala Val Asn Ala 55 60 Leu Tyr Gln Leu Asp Ala Lys Leu Gln Leu Glu Gln Gln Val Ala Thr 70 75 Gly Pro Val Leu Asp Asn Lys Lys Cys Thr Pro Pro Ile Glu Ala Ser 85 90 95 Gln Cys His Glu Ala Glu Met Thr Asp Asn Val Asn Gln Leu Leu Leu 100 105 110 Val Asp Pro Pro Arg Lys Arg Leu Val Glu Cys Gly Gln Leu Leu Lys 120 125 Gly Ile Cys Ala Leu Arg Ala Leu Ser Asn Ile Ser Leu Arg Leu Phe 130 135 140 Tyr Glu Asp Gly Ser Gly Glu Lys Ser Phe Val Ala Ser Asn Asp Glu 155 150 Gly Val Ala Thr Val Gly Leu Val Ser Ser Thr Gly Pro Gly Gly Asp 170 165 Arg Val Leu Phe Val Gly Lys Gly Asn Gly Pro His Asp Asn Gly Ile 180 185 190 Ile Val Ser Thr Arg Leu Leu Asp Arg Thr Asp Ser Arg Glu Ala Phe 195 200 205 Glu Ala Tyr Thr Asp His Ala Thr Tyr Lys Ala Gly Tyr Leu Ser Thr 215 220 Asn Thr Gln Gln Phe Val Ala Ala Phe Glu Asp Gly Pro Tyr Val Phe 230 .235 Phe Val Phe Asn Gln Gln Asp Lys His Pro Ala Arg Asn Arg Thr Leu 245 250 255 Leu Ala Arg Met Cys Arg Glu Asp Pro Asn Tyr Tyr Ser Tyr Leu Glu 260 265 Met Asp Leu Gln Cys Arg Asp Pro Asp Ile His Ala Ala Ala Phe Gly 285 280 Thr Cys Leu Ala Ala Ser Val Ala Ala Pro Gly Ser Gly Arg Val Leu 290 295 300 Tyr Ala Val Phe Ser Arg Asp Ser Arg Ser Ser Gly Gly Pro Gly Ala 315 Gly Leu Cys Leu Phe Pro Leu Asp Glu Val His Ala Lys Met Glu Ala 325 330 335 Asn Arg Asn Ala Cys Tyr Thr Gly Thr Arg Glu Ala Arg Asp Ile Phe

345

Tyr Lys Pro Phe His Gly Asp Ile Gln Cys Gly Gly His Ala Pro Gly 360 Ser Ser Lys Ser Phe Pro Cys Gly Ser Glu His Leu Pro Tyr Pro Leu 375 380 Gly Ser Arg Asp Gly Leu Arg Gly Thr Ala Val Leu Gln Arg Gly Gly 395 390 Leu Asn Leu Thr Ala Val Thr Val Ala Ala Glu Asn Asn His Thr Val 405 410 Ala Phe Leu Gly Thr Ser Asp Gly Arg Ile Leu Lys Val Tyr Leu Thr 425 430 420 Pro Asp Gly Thr Ser Ser Glu Tyr Asp Ser Ile Leu Val Glu Ile Asn 445 435 440 Lys Arg Val Lys Arg Asp Leu Val Leu Ser Gly Asp Leu Gly Ser Leu 460 455 450 Tyr Ala Met Thr Gln Asp Lys Val Phe Arg Leu Pro Val Gln Glu Cys 475 470 Leu Ser Tyr Pro Thr Cys Thr Gln Cys Arg Asp Ser Gln Asp Pro Tyr 485 490 Cys Gly Trp Cys Val Val Glu Gly Arg Cys Thr Arg Lys Ala Glu Cys 500 505 Pro Arg Ala Glu Glu Ala Ser His Trp Leu Trp Ser Arg Ser Lys Ser 515 520 Cys Val Ala Val Thr Ser Ala Gln Pro Gln Asn Met Ser Arg Arg Ala 535 540 Gln Gly Glu Val Gln Leu Thr Val Ser Pro Leu Pro Ala Leu Ser Glu 555 550 Glu Asp Glu Leu Leu Cys Leu Phe Gly Glu Ser Pro Pro His Pro Ala 570 575 565 Arg Val Glu Gly Glu Ala Val Ile Cys Asn Ser Pro Ser Ser Ile Pro 590 585 580 Val Thr Pro Pro Gly Gln Asp His Val Ala Val Thr Ile Gln Leu Leu 600 595 Leu Arg Arg Gly Asn Ile Phe Leu Thr Ser Tyr Gln Tyr Pro Phe Tyr 620 615 Asp Cys Arg Gln Ala Met Ser Leu Glu Glu Asn Leu Pro Cys Ile Ser 635 630 Cys Val Ser Asn Arg Trp Thr Cys Gln Trp Asp Leu Arg Tyr His Glu 650 655 645 Cys Arg Glu Ala Ser Pro Asn Pro Glu Asp Gly Ile Val Arg Ala His 670 665 660 Met Glu Asp Ser Cys Pro Gln Phe Leu Gly Pro Ser Pro Leu Val Ile 675 680 Pro Met Asn His Glu Thr Asp Val Asn Phe Gln Gly Lys Asn Leu Asp 695 700 Thr Val Lys Gly Ser Ser Leu His Val Gly Ser Asp Leu Leu Lys Phe 715 710 Met Glu Pro Val Thr Met Gln Glu Ser Gly Thr Phe Ala Phe Arg Thr 725 730 735 Pro Lys Leu Ser His Asp Ala Asn Glu Thr Leu Pro Leu His Leu Tyr 740 745 750 Val Lys Ser Tyr Gly Lys Asn Ile Asp Ser Lys Leu His Val Thr Leu 760 755 Tyr Asp Cys Ser Phe Gly Arg Ser Asp Cys Ser Leu Cys Arg Ala Ala 780 775 Asn Pro Asp Tyr Arg Cys Ala Trp Cys Gly Gly Gln Ser Arg Cys Val 795 790 Tyr Glu Ala Leu Cys Asn Thr Thr Ser Glu Cys Pro Pro Pro Val Ile 810 B05 Thr Arg Ile Gln Pro Glu Thr Gly Pro Leu Gly Gly Gly Ile Arg Ile 820 825 Thr Ile Leu Gly Ser Asn Leu Gly Val Gln Ala Gly Asp Ile Gln Arg 835 840 845 Ile Ser Val Ala Gly Arg Asn Cys Ser Phe Gln Pro Glu Arg Tyr Ser

Val Ser Thr Arg Ile Val Cys Val Ile Glu Ala Ala Glu Thr Pro Phe 875 870 Thr Gly Gly Val Glu Val Asp Val Phe Gly Lys Leu Gly Arg Ser Pro 885 890 Pro Asn Val Gln Phe Thr Phe Gln Gln Pro Lys Pro Leu Ser Val Glu 910 905 900 Pro Gln Gln Gly Pro Gln Ala Gly Gly Thr Thr Leu Thr Ile His Gly 915 920 925 Thr His Leu Asp Thr Gly Ser Gln Glu Asp Val Arg Val Thr Leu Asn 935 940 Gly Val Pro Cys Lys Val Thr Lys Phe Gly Ala Gln Leu Gln Cys Val 955 Thr Gly Pro Gln Ala Thr Arg Gly Gln Met Leu Leu Glu Val Ser Tyr 965 970 Gly Gly Ser Pro Val Pro Asn Pro Gly Ile Phe Phe Thr Tyr Arg Glu 980 985 990 Asn Pro Val Leu Arg Ala Phe Glu Pro Leu Arg Ser Phe Ala Ser Gly 995 1000 1005 Gly Arg Ser Ile Asn Val Thr Gly Gln Gly Phe Ser Leu Ile Gln Arg 1020 1015 Phe Ala Met Val Val Ile Ala Glu Pro Leu Gln Ser Trp Gln Pro Pro 1030 1035 Arg Glu Ala Glu Ser Leu Gln Pro Met Thr Val Val Gly Thr Asp Tyr 1045 1050 Val Phe His Asn Asp Thr Lys Val Val Phe Leu Ser Pro Ala Val Pro 1070 1060 1065 Glu Glu Pro Glu Ala Tyr Asn Leu Thr Val Leu Ile Glu Met Asp Gly 1085 1075 1080 His Arg Ala Leu Leu Arg Thr Glu Ala Gly Ala Phe Glu Tyr Val Pro 1095 1100 Asp Pro Thr Phe Glu Asn Phe Thr Gly Gly Val Lys Lys Gln Val Asn 1105 1110 1115 1120 Lys Leu Ile Arg Ala Arg Gly Thr Asn Leu Asn Lys Ala Met Thr Leu 1125 1130 1135 Gln Glu Ala Glu Ala Phe Val Gly Ala Glu Arg Cys Thr Met Lys Thr 1140 1145 1150 Leu Thr Glu Thr Asp Leu Tyr Cys Glu Pro Pro Glu Val Gln Pro Pro 1155 1160 1165 Pro Lys Arg Arg Gln Lys Arg Asp Thr Thr His Asn Leu Pro Glu Phe 1170 1175 1180 Ile Val Lys Phe Gly Ser Arg Glu Trp Val Leu Gly Arg Val Glu Tyr 1195 1190 Asp Thr Arg Val Ser Asp Val Pro Leu Ser Leu Ile Leu Pro Leu Val 1205 1210 Ile Val Pro Met Val Val Val Ile Ala Val Ser Val Tyr Cys Tyr Trp 1220 1225 1230 Arg Lys Ser Gln Gln Ala Glu Arg Glu Tyr Glu Lys Ile Lys Ser Gln 1235 1240 1245 Leu Glu Gly Leu Glu Glu Ser Val Arg Asp Arg Cys Lys Lys Glu Phe 1255 1260 Thr Asp Leu Met Ile Glu Met Glu Asp Gln Thr Asn Asp Val His Glu 1270 1275 Ala Gly Ile Pro Val Leu Asp Tyr Lys Thr Tyr Thr Asp Arg Val Phe 1285 1290 1295 Phe Leu Pro Ser Lys Asp Gly Asp Lys Asp Val Met Ile Thr Gly Lys 1300 1305 Leu Asp Ile Pro Glu Pro Arg Arg Pro Val Val Glu Gln Ala Leu Tyr 1315 1320 1325 Gln Phe Ser Asn Leu Leu Asn Ser Lys Ser Phe Leu Ile Asn Phe Ile 1335 1340 His Thr Leu Glu Asn Gln Pro Glu Phe Ser Ala Arg Ala Lys Val Tyr 1350 1355 Phe Ala Ser Leu Leu Thr Val Ala Leu His Gly Lys Leu Glu Tyr Tyr 1370 1365

Thr Asp Ile Met His Thr Leu Phe Leu Glu Leu Leu Glu Gln Tyr Val 1380 1385 1390 Val Ala Lys Asn Pro Lys Leu Met Leu Arg Arg Ser Glu Thr Val Val 1395 1400 1405 Glu Arg Met Leu Ser Asn Trp Met Ser Ile Cys Leu Tyr Gln Tyr Leu 1410 1415 1420 Lys Asp Ser Ala Gly Glu Pro Leu Tyr Lys Leu Phe Lys Ala Ile Lys 1430 1435 1425 His Gln Val Glu Lys Gly Pro Val Asp Ala Val Gln Lys Lys Ala Lys 1445 1450 1455 Tyr Thr Leu Asn Asp Thr Gly Leu Leu Gly Asp Asp Val Glu Tyr Ala 1465 1470 1460 Pro Leu Thr Val Ser Val Ile Val Gln Asp Glu Gly Val Asp Ala Ile 1480 1485 1475 Pro Val Lys Val Leu Asn Cys Asp Thr Ile Ser Gln Val Lys Glu Lys 1490 1495 1500 Ile Ile Asp Gln Val Tyr Arg Gly Gln Pro Cys Ser Cys Trp Pro Arg 1510 1515 1520 Pro Asp Ser Val Val Leu Glu Trp Arg Pro Gly Ser Thr Ala Gln Ile 1525 1530 1535 Leu Ser Asp Leu Asp Leu Thr Ser Gln Arg Glu Gly Arg Trp Lys Arg 1540 1545 1550 Val Asn Thr Leu Met His Tyr Asn Val Arg Asp Gly Ala Thr Leu Ile 1555 1560 1565 Leu Ser Lys Val Gly Val Ser Gln Gln Pro Glu Asp Ser Gln Gln Asp 1570 1575 1580 Leu Pro Gly Glu Arg His Ala Leu Leu Glu Glu Glu Asn Arg Val Trp 1590 1595 His Leu Val Arg Pro Thr Asp Glu Val Asp Glu Gly Lys Ser Lys Arg 1605 1610 1615 Gly Ser Val Lys Glu Lys Glu Arg Thr Lys Ala Ile Thr Glu Ile Tyr 1620 1625 1630 Leu Thr Arg Leu Leu Ser Val Lys Gly Thr Leu Gln Gln Phe Val Asp 1635 1640 1645 Asn Phe Phe Gln Ser Val Leu Ala Pro Gly His Ala Val Pro Pro Ala 1650 1655 1660 Val Lys Tyr Phe Phe Asp Phe Leu Asp Glu Gln Ala Glu Lys His Asn 1670 1675 1680 Ile Gln Asp Glu Asp Thr Ile His Ile Trp Lys Thr Asn Ser Leu Pro 1685 1690 1695 Leu Arg Phe Trp Val Asn Ile Leu Lys Asn Pro His Phe Ile Phe Asp 1700 1705 1710 Val His Val His Glu Val Val Asp Ala Ser Leu Ser Val Ile Ala Gln 1715 1720 1725 Thr Phe Met Asp Ala Cys Thr Arg Thr Glu His Lys Leu Ser Arg Asp 1730 1735 1740 Ser Pro Ser Asn Lys Leu Leu Tyr Ala Lys Glu Ile Ser Thr Tyr Lys 1750 1755 Lys Met Val Glu Asp Tyr Tyr Lys Gly Ile Arg Gln Met Val Gln Val 1765 1770 1775 Ser Asp Gln Asp Met Asn Thr His Leu Ala Glu Ile Ser Arg Ala His 1780 1785 1790 Thr Asp Ser Leu Asn Thr Leu Val Ala Leu His Gln Leu Tyr Gln Tyr 1795 1800 1805 Thr Gln Lys Tyr Tyr Asp Glu Ile Ile Asn Ala Leu Glu Glu Asp Pro 1810 1815 1820 Ala Ala Gln Lys Met Gln Leu Ala Phe Arg Leu Gln Gln Ile Ala Ala 1830 1835 Ala Leu Glu Asn Lys Val Thr Asp Leu 1845 1849

<211> 499 <212> PRT <213> Homo sapiens

<400> 2189 Arg Ala Arg Arg Leu Ala Leu Gln Cys His Val Cys Val Cys Ala Leu 10 Thr Pro Gly Glu Gln Ser Gly Arg Arg Leu Pro Gly Gln Thr Trp Leu 25 20 Met Phe Ser Cys Phe Cys Phe Ser Leu Gln Asp Asn Ser Phe Ser Ser 40 Thr Thr Val Thr Glu Cys Asp Glu Asp Pro Val Ser Leu His Glu Asp 55 Gln Thr Asp Cys Ser Ser Leu Arg Asp Glu Asn Asn Lys Glu Asn Tyr 75 70 Pro Asp Ala Gly Ala Leu Val Glu Glu His Ala Pro Pro Ser Trp Glu 85 90 Pro Gln Gln Gln Asn Val Glu Ala Thr Val Leu Val Asp Ser Val Leu 100 105 110 Arg Pro Ser Met Gly Asn Phe Lys Ser Arg Lys Pro Lys Ser Ile Phe 120 125 Lys Ala Glu Ser Gly Arg Ser His Gly Glu Ser Gln Glu Thr Glu His 135 140 Val Val Ser Ser Gln Ser Glu Cys Gln Val Arg Ala Gly Thr Pro Ala 150 155 His Glu Ser Pro Gln Asn Asn Ala Phe Lys Cys Gln Glu Thr Val Arg 165 170 Leu Gln Pro Arg Ile Asp Gln Arg Thr Ala Thr Ser Pro Lys Asp Ala 180 185 190 Phe Glu Thr Arg Gln Asp Leu Asn Glu Glu Glu Ala Ala Gln Val His 200 Gly Val Lys Asp Pro Ala Pro Ala Ser Thr Gln Ser Val Leu Ala Asp 215 220 Gly Thr Asp Ser Ala Asp Pro Ser Pro Val His Lys Asp Gly Gln Asn 230 235 Glu Ala Asp Ser Ala Pro Glu Asp Leu His Ser Val Gly Thr Ser Arg 245 250 Leu Leu Leu Tyr His Ile Thr Asp Gly Asp Asn Pro Thr Ala Val Arg 260 265 His Gly Cys Ser Leu Phe Ser Gly Gln Ser Gln Arg Phe Asn Leu Asp 280 275 285 Pro Glu Ser Ala Pro Ser Pro Pro Ser Thr Gln Gln Phe Met Met Pro 295 300 Arg Ser Ser Ser Arg Cys Ser Cys Gly Asp Gly Lys Glu Pro Gln Thr 310 315 Ile Thr Gln Leu Thr Lys His Ile Gln Ser Leu Lys Arg Lys Ile Arg 325 330 Lys Phe Glu Glu Lys Phe Glu Glu Glu Lys Lys Tyr Arg Pro Ser His 340 345 350 Gly Asp Lys Thr Ser Asn Pro Glu Val Leu Lys Trp Met Asn Asp Leu 355 360 365 Ala Lys Gly Arg Lys Gln Leu Lys Glu Leu Lys Leu Lys Leu Ser Glu 375 380 Glu Gln Gly Ser Ala Pro Lys Gly Pro Pro Arg Asn Leu Leu Cys Glu 385 390 395 Gln Pro Thr Val Pro Arg Glu Asn Gly Lys Pro Glu Ala Ala Gly Pro 405 410 Glu Pro Ser Ser Ser Gly Glu Glu Thr Pro Asp Ala Ala Leu Thr Cys 420 425 Leu Lys Glu Arg Arg Glu Gln Leu Pro Pro Gln Glu Asp Ser Lys Val 435 440 445 Thr Lys Gln Asp Lys Asn Leu Ile Lys Pro Leu Tyr Asp Arg Tyr Arg

<210> 2190 <211> 686 <212> PRT <213> Homo sapiens

<400> 2190 Phe Phe Arg Phe Tyr Phe Ser Phe Ile Arg Leu Phe Ala Met Ser Leu 5 10 Ala Asp Leu Thr Lys Thr Asn Ile Asp Glu His Phe Phe Gly Val Ala 25 20 Leu Glu Asn Asn Arg Arg Ser Ala Ala Cys Lys Arg Ser Pro Gly Thr 40 Gly Asp Phe Ser Arg Asn Ser Asn Ala Ser Asn Lys Ser Val Asp Tyr 55 60 Ser Arg Ser Gln Cys Ser Cys Gly Ser Leu Ser Ser Gln Tyr Asp Tyr 75 70 Ser Glu Asp Phe Leu Cys Asp Cys Ser Glu Lys Ala Ile Asn Arg Asn 90 85 Tyr Leu Lys Gln Pro Val Val Lys Glu Lys Glu Lys Lys Lys Tyr Asn 105 110 100 Val Ser Lys Ile Ser Gln Ser Lys Gly Gln Lys Glu Ile Ser Val Glu 120 125 Lys Lys His Thr Trp Asn Ala Ser Leu Phe Asn Ser Gln Ile His Met 135 140 Ile Ala Gln Arg Arg Asp Ala Met Ala His Arg Ile Leu Ser Ala Arg 150 155 Leu His Lys Ile Lys Gly Leu Lys Asn Glu Leu Ala Asp Met His His 170 175 165 Lys Leu Glu Ala Ile Leu Thr Glu Asn Gln Phe Leu Lys Gln Leu Gln 180 185 Leu Arg His Leu Lys Ala Ile Gly Lys Tyr Glu Asn Ser Gln Asn Asn 195 200 205 Leu Pro Gln Ile Met Ala Lys His Gln Asn Glu Val Lys Asn Leu Arg 220 215 Gln Leu Leu Arg Lys Ser Gln Glu Lys Glu Arg Thr Leu Ser Arg Lys 235 240 230 Leu Arg Glu Thr Asp Ser Gln Leu Leu Lys Thr Lys Asp Ile Leu Gln 250 245 Ala Leu Gln Lys Leu Ser Glu Asp Lys Asn Leu Ala Glu Arg Glu Glu 260 270 265 Leu Thr His Lys Leu Ser Ile Ile Thr Thr Lys Met Asp Ala Asn Asp 280 285 275 . Lys Lys Ile Gln Ser Leu Glu Lys Gln Leu Arg Leu Asn Cys Arg Ala 300 295 Phe Ser Arg Gln Leu Ala Ile Glu Thr Arg Lys Thr Leu Ala Ala Gln 315 310 Thr Ala Thr Lys Thr Leu Gln Val Glu Val Lys His Leu Gln Gln Lys 330 325 Leu Lys Glu Lys Asp Arg Glu Leu Glu Ile Lys Asn Ile Tyr Ser His 340 345 350 Arg Ile Leu Lys Asn Leu His Asp Thr Glu Asp Tyr Pro Lys Val Ser 360 365 Ser Thr Lys Ser Val Gln Ala Asp Arg Lys Ile Leu Pro Phe Thr Ser 380 375 Met Arg His Gln Gly Thr Gln Lys Ser Asp Val Pro Pro Leu Thr Thr 390 395 400

Lys Gly Lys Lys Ala Thr Gly Asn Ile Asp His Lys Glu Lys Ser Thr 405 410 Glu Ile Asn His Glu Ile Pro His Cys Val Asn Lys Leu Pro Lys Gln 425 Glu Asp Ser Lys Arg Lys Tyr Glu Asp Leu Ser Gly Glu Glu Lys His 440 Leu Glu Val Gln Ile Leu Leu Glu Asn Thr Gly Arg Gln Lys Asp Lys 455 460 Lys Glu Asp Gln Glu Lys Lys Asn Ile Phe Val Lys Glu Glu Gln Glu 470 475 Leu Pro Pro Lys Ile Ile Glu Val Ile His Pro Glu Arg Glu Ser Asn 490 485 Gln Glu Asp Val Leu Val Arg Glu Lys Phe Lys Arg Ser Met Gln Arg 500 505 510 Asn Gly Val Asp Asp Thr Leu Gly Lys Gly Thr Ala Pro Tyr Thr Lys 520 525 Gly Pro Leu Arg Gln Arg Arg His Tyr Ser Phe Thr Glu Ala Thr Glu 540 535 Asn Leu His His Gly Leu Pro Ala Ser Gly Gly Pro Ala Asn Ala Gly 550 555 Asn Met Arg Tyr Ser His Ser Thr Gly Lys His Leu Ser Asn Arg Glu 565 570 Glu Met Glu Leu Glu His Ser Asp Ser Gly Tyr Glu Pro Ser Phe Gly 585 580 590 Lys Ser Ser Arg Ile Lys Val Lys Asp Thr Thr Phe Arg Asp Lys Lys 605 595 600 Ser Ser Leu Met Glu Glu Leu Phe Gly Ser Gly Tyr Val Leu Lys Thr 620 615 Asp Gln Ser Ser Pro Gly Val Ala Lys Gly Ser Glu Glu Pro Leu Gln 625 630 635 640 Ser Lys Glu Ser His Pro Leu Pro Pro Ser Gln Ala Ser Thr Ser His 645 650 655 Ala Phe Gly Asp Ser Lys Val Thr Val Val Asn Ser Ile Lys Pro Ser 665 Ser Pro Thr Glu Gly Lys Arg Lys Ile Ile Ile 680

<210> 2191 <211> 956 <212> PRT <213> Homo sapiens

<400> 2191 Ser Ser Arg Thr Arg Glu Met Glu Glu Lys Glu Ile Leu Arg Arg Gln 10 Ile Arg Leu Leu Gln Gly Leu Ile Asp Asp Tyr Lys Thr Leu His Gly 25 Asn Ala Pro Ala Pro Gly Thr Pro Ala Ala Ser Gly Trp Gln Pro Pro 40 Thr Tyr His Ser Gly Arg Ala Phe Ser Ala Arg Tyr Pro Arg Pro Ser 50 55 Arg Arg Gly Tyr Ser Ser His His Gly Pro Ser Trp Arg Lys Lys Tyr 75 Ser Leu Val Asn Arg Pro Pro Gly Pro Ser Asp Pro Pro Ala Asp His 85 90 Ala Val Arg Pro Leu His Gly Ala Arg Gly Gly Gln Pro Pro Val Pro 100 105 Gln Gln His Val Leu Glu Arg Gln Val Gln Leu Ser Gln Gly Gln Asn 120 125 Val Val Ile Lys Val Lys Pro Pro Ser Lys Ser Gly Ser Ala Ser Ala 135

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Ser Gly Ala Gln Arg Gly Ser Leu Glu Glu Phe Glu Asp Thr Pro Trp
                                    155
                  150
Ser Asp Gln Arg Pro Arg Glu Gly Glu Gly Glu Pro Pro Arg Gly Gln
                                                 175
                               170
              165
Leu Gln Pro Ser Arg Pro Thr Arg Ala Arg Gly Thr Cys Ser Val Glu
                                              190
                            185
          180
Asp Pro Leu Leu Val Cys Gln Lys Glu Pro Gly Lys Pro Arg Met Val
                        200
                                          205
Lys Ser Val Gly Ser Val Gly Asp Ser Pro Arg Glu Pro Arg Arg Thr
                                       220
                    215
Val Ser Glu Ser Val Ile Ala Val Lys Ala Ser Phe Pro Ser Ser Ala
                 230
                                   235
Leu Pro Pro Arg Thr Gly Val Ala Leu Gly Arg Lys Leu Gly Ser His
                       250
              245
Ser Val Ala Ser Cys Ala Pro Gln Leu Leu Gly Asp Arg Arg Val Asp
                                               270
          260
                            265
Ala Gly His Thr Asp Gln Pro Val Pro Ser Gly Ser Val Gly Gly Pro
                         280
      275
Ala Arg Pro Ala Ser Gly Pro Arg Gln Ala Arg Glu Ala Ser Leu Val
                                       300
   290
                     295
Val Thr Cys Arg Thr Asn Lys Phe Arg Lys Asn Asn Tyr Lys Trp Val
                                   315
                 310
Ala Ala Ser Ser Lys Ser Pro Arg Val Ala Arg Arg Ala Leu Ser Pro
              325
                               330
Arg Val Ala Ala Glu Asn Val Cys Lys Ala Ser Ala Gly Met Ala Asn
                                               350
                           345
          340
Lys Val Glu Lys Pro Gln Leu Ile Ala Asp Pro Glu Pro Lys Pro Arg
                                           365
               360
      355
Lys Pro Ala Thr Ser Ser Lys Pro Gly Ser Ala Pro Ser Lys Tyr Lys
   370 375
                                      380
Trp Lys Ala Ser Ser Pro Ser Ala Ser Ser Ser Ser Phe Arg Trp
                                  395
                 390
Gln Ser Glu Ala Gly Ser Lys Asp His Ala Ser Gln Leu Ser Pro Val
              405
                         410
Leu Ser Arg Ser Pro Ser Gly Asp Arg Pro Ala Leu Ala His Ser Gly
                            425
          420
Leu Lys Pro Leu Ser Gly Glu Thr Pro Leu Ser Ala Tyr Lys Val Lys
                         440
                                          445
       435
Thr Arg Thr Lys Ile Ile Arg Arg Arg Gly Ser Thr Ser Leu Pro Gly
                    455
   450
Asp Lys Lys Ser Gly Thr Ser Pro Ala Ala Thr Ala Lys Ser His Leu
                  470
                                    475
Ser Leu Arg Arg Gln Ala Leu Arg Gly Lys Ser Ser Pro Val Leu
                                490
              485
Lys Lys Thr Pro Asn Lys Gly Leu Val Gln Val Thr Lys His Arg Leu
                                     510
                            505
Cys Arg Leu Pro Pro Ser Arg Ala His Leu Pro Thr Lys Glu Ala Ser
                                          525
                         520
       515
Ser Leu His Ala Val Arg Thr Ala Pro Thr Ser Lys Val Ile Lys Thr
                                       540
                     535
   530
Arg Tyr Arg Ile Val Lys Lys Thr Pro Ala Ser Pro Leu Ser Ala Pro
                                    555
                  550
Pro Phe Pro Leu Ser Leu Pro Ser Trp Arg Ala Arg Arg Leu Ser Leu
                                                  575
                                570
Ser Arg Ser Leu Val Leu Asn Arg Leu Arg Pro Val Ala Ser Gly Gly
                                               590
                            585
          580
Gly Lys Ala Gln Pro Gly Ser Pro Trp Trp Arg Ser Lys Gly Tyr Arg
                600
       595
Cys Ile Gly Gly Val Leu Tyr Lys Val Ser Ala Asn Lys Leu Ser Lys
                              620
                     615
Thr Ser Gly Gln Pro Ser Asp Ala Gly Ser Arg Pro Leu Leu Arg Thr
                                    635
Gly Arg Leu Asp Pro Ala Gly Ser Cys Ser Arg Ser Leu Ala Ser Arg
                                 650
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Ala Val Gln Arg Ser Leu Ala Ile Ile Arg Gln Ala Arg Gln Arg Arg 660 665 Glu Lys Arg Lys Glu Tyr Cys Met Tyr Tyr Asn Arg Phe Gly Arg Cys 680 Asn Arg Gly Glu Arg Cys Pro Tyr Ile His Asp Pro Glu Lys Val Ala 695 Val Cys Thr Arg Phe Val Arg Gly Thr Cys Lys Lys Thr Asp Gly Thr 710 715 Cys Pro Phe Ser His His Val Ser Lys Glu Lys Met Pro Val Cys Ser 725 730 735 Tyr Phe Leu Lys Gly Ile Cys Ser Asn Ser Asn Cys Pro Tyr Ser His 745 Val Tyr Val Ser Arg Lys Ala Glu Val Cys Ser Asp Phe Leu Lys Gly 755 760 765 Tyr Cys Pro Leu Gly Ala Lys Cys Lys Lys Lys His Thr Leu Leu Cys 775 780 Pro Asp Phe Ala Arg Arg Gly Ala Cys Pro Arg Gly Ala Gln Cys Gln 795 790 Leu Leu His Arg Thr Gln Lys Arg His Ser Arg Arg Ala Ala Thr Ser 805 810 815 Pro Ala Pro Gly Pro Ser Asp Ala Thr Ala Arg Ser Arg Val Ser Ala 825 820 830 Ser His Gly Pro Arg Lys Pro Ser Ala Ser Gln Arg Pro Thr Arg Gln 840 Thr Pro Ser Ser Ala Ala Leu Thr Ala Ala Ala Val Ala Ala Pro Pro 855 860 His Cys Pro Gly Gly Ser Ala Ser Pro Ser Ser Lys Ala Ser Ser 875 870 Ser Ser Ser Ser Ser Ser Pro Pro Ala Ser Leu Asp His Glu Ala 885 . 890 Pro Ser Leu Gln Glu Ala Ala Leu Ala Ala Ala Cys Ser Asn Arg Leu 905 Cys Lys Leu Pro Ser Phe Ile Ser Leu Gln Ser Ser Pro Ser Pro Gly 920 925 Ala Gln Pro Arg Val Arg Ala Pro Arg Ala Pro Leu Thr Lys Asp Ser 935 Gly Lys Pro Leu His Ile Lys Pro Arg Leu 950

<210> 2192 <211> 523 <212> PRT <213> Homo sapiens

<400> 2192

Trp Pro Asp Leu Val His Thr Trp Ser Ser Glu Glu Ala Met Gly Ser 10 Cys Cys Ser Cys Pro Asp Lys Asp Thr Val Pro Asp Asn His Arg Asn Lys Phe Lys Val Ile Asn Val Asp Asp Asp Gly Asn Glu Leu Gly Ser 40 Gly Ile Met Glu Leu Thr Asp Thr Glu Leu Ile Leu Tyr Thr Arg Lys 55 Arg Asp Ser Val Lys Trp His Tyr Leu Cys Leu Arg Arg Tyr Gly Tyr Asp Ser Asn Leu Phe Ser Phe Glu Ser Gly Arg Arg Cys Gln Thr Gly 85 90 Gln Gly Ile Phe Ala Phe Lys Cys Ala Arg Ala Glu Glu Leu Phe Asn 105 100 110 Met Leu Gln Glu Ile Met Gln Asn Asn Ser Ile Asn Val Val Glu Glu 120

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Pro Val Val Glu Arg Asn Asn His Gln Thr Glu Leu Glu Val Pro Arg
                                   140
                   135
Thr Pro Arg Thr Pro Thr Thr Pro Gly Phe Ala Ala Gln Asn Leu Pro
                             155
              150
Asn Gly Tyr Pro Arg Tyr Pro Ser Phe Gly Asp Ala Ser Ser His Pro
          165 170
Ser Ser Arg His Pro Ser Val Gly Ser Ala Arg Leu Pro Ser Val Gly
        180 185 190
Glu Glu Ser Thr His Pro Leu Leu Val Ala Glu Glu Gln Val His Thr
                      200
                                     205
Tyr Val Asn Thr Thr Gly Val Gln Glu Glu Arg Lys Asn Arg Thr Ser
  210
                   215
                                   220
Val His Val Pro Leu Glu Ala Arg Val Ser Asn Ala Glu Ser Ser Thr
       230
                       235
Pro Lys Glu Glu Pro Ser Ser Ile Glu Asp Arg Asp Pro Gln Ile Leu
                  250 255
           245
Leu Glu Pro Glu Gly Val Lys Phe Val Leu Gly Pro Thr Pro Val Gln
                 265
                              270
         260
Lys Gln Leu Met Glu Lys Glu Lys Leu Glu Gln Leu Gly Arg Asp Gln
                    280
     275
Val Ser Gly Ser Gly Ala Asn Asn Thr Glu Trp Asp Thr Gly Tyr Asp
                295
                                   300
Ser Asp Glu Arg Arg Asp Ala Pro Ser Val Asn Lys Leu Val Tyr Glu
                      315
               310
Asn Ile Asn Gly Leu Ser Ile Pro Ser Ala Ser Gly Val Arg Arg Gly
                    330 335
           325
Arg Leu Thr Ser Thr Ser Thr Ser Asp Thr Gln Asn Ile Asn Asn Ser
                 . 345 350
       340
Ala Gln Arg Arg Thr Ala Leu Leu Asn Tyr Glu Asn Leu Pro Ser Leu
    355 360
                                     365
Pro Pro Val Trp Glu Ala Arg Lys Leu Ser Arg Asp Glu Asp Asp Asn
 370 . 375
                                   380
Leu Gly Pro Lys Thr Pro Ser Leu Asn Gly Tyr His Asn Asn Leu Asp
        390 395
Pro Met His Asn Tyr Val Asn Thr Glu Asn Val Thr Val Pro Ala Ser
                 410 415
            405
Ala His Lys Ile Glu Tyr Ser Arg Arg Arg Asp Cys Thr Pro Thr Val
                 425
         420
Phe Asn Phe Asp Ile Arg Arg Pro Ser Leu Glu His Arg Gln Leu Asn
                      440
Tyr Ile Gln Val Asp Leu Glu Gly Gly Ser Asp Ser Asp Asn Pro Gln
                  455
                                   460
Thr Pro Lys Thr Pro Thr Thr Pro Leu Pro Gln Thr Pro Thr Arg Arg
        470 475
Thr Glu Leu Tyr Ala Val Ile Asp Ile Glu Arg Thr Ala Ala Met Ser
                    490
            485
Asn Leu Gln Lys Ala Leu Pro Arg Asp Asp Gly Thr Ser Arg Lys Thr 500 505 510
Arg His Asn Ser Thr Asp Leu Pro Leu
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<210> 2193 <211> 224 <212> PRT <213> Homo sapiens

Thr Thr Ala Cys Val Leu Thr Thr Ala Ala Val Gln Leu Glu Leu Ile 40 Thr Pro Phe Gln Leu Tyr Phe Asn Pro Glu Leu Ile Phe Lys His Phe . 60 55 Gln Ile Trp Arg Leu Ile Thr Asn Phe Leu Phe Phe Gly Pro Val Gly 70 75 Phe Asn Phe Leu Phe Asn Met Ile Phe Leu Tyr Arg Tyr Cys Arg Met 90 Leu Glu Glu Gly Ser Phe Arg Gly Arg Thr Ala Asp Phe Val Phe Met 100 105 110 Phe Leu Phe Gly Gly Phe Leu Met Thr Leu Phe Gly Leu Phe Val Ser 125 120 Leu Val Phe Leu Gly Pro Gly Leu Tyr Asn Asn Gly Ser Ser Met Cys 135 140 Gly Ala Glu Glu Pro Leu Cys Pro His Glu Leu Leu Arg Pro Ser Gln 155 150 Leu Pro Gly Pro Leu Ser Ala Leu Gly Ala His Gly Ile Phe Leu Val 165 170 Val Gly Glu Leu Asn His Cys Gly Pro Phe Gly Tyr Cys Ser Trp Thr 180 185 190 180 185 190 His Ile Phe Phe Leu Gly Arg Cys Ile Ser Gln Ser Thr Trp Trp Asn 195 200 205 Lys Asn Ser Glu Asn Thr Ile Tyr Phe Glu Ser Tyr Phe 215

<210> 2194 <211> 129 <212> PRT <213> Homo sapiens

<400> 2194 His Arg Leu Cys Met Pro Ile Gln Gly Ala Cys Gly Glu Arg Met Glu 10 Phe Ser Leu Leu Pro Gly Leu Glu Cys Asn Gly Val Ile Leu Ala 20 25 His Cys Asn Leu Arg Leu Pro Gly Ser Ser Asn Ser Pro Ala Ser Ala 40 Ser Gln Val Ala Gly Ile Thr Gly Val Cys His His Ala Arg Leu Ile 55 60 Phe Val Phe Ser Val Glu Thr Gly Phe Leu His Ala Gly Gln Ala Gly 70 75 Leu Glu Leu Leu Thr Ser Gly Asp Pro Pro Ala Ser Ala Ser Gln Ser 85 90 Ala Gly Ile Thr Gly Lys Ser Gln His Thr Arg Pro Gly Tyr Glu Phe 100 105 110 Ile Ile Pro Tyr Ser Ala Ala Gln Glu Asp Ala Leu Lys Ala Leu Met 120 125

<210> 2195 <211> 452 <212> PRT <213> Homo sapiens

. <400> 2195 Leu Tyr Pro Glu Asn Leu Gly Glu Ser Leu Phe Pro Ile Leu Leu Leu 1 5 10 15

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Pro Pro Pro Trp Pro Asp Gly Gly Arg Pro Cys Cys Val Glu Met Ser
Thr Arg Ala Lys Lys Leu Arg Arg Ile Trp Arg Ile Leu Glu Glu Lys
                       40
       35
Glu Ser Val Ala Gly Ala Val Gln Thr Leu Leu Leu Arg Ser Gln Glu
                              60
                55
Gly Gly Val Thr Ser Ala Ala Ala Ser Thr Leu Ser Glu Pro Pro Arg
                 70
                         75
Arg Thr Gln Glu Ser Arg Thr Arg Thr Arg Ala Leu Gly Leu Pro Thr
             85
                               90
Leu Pro Met Glu Lys Leu Ala Ala Ser Thr Glu Pro Gln Gly Pro Arg
                           105
                                           110
          100
Pro Val Leu Gly Arg Glu Ser Val Gln Val Pro Asp Asp Gln Asp Phe
                       120
                                        125
Arg Ser Phe Arg Ser Glu Cys Glu Ala Glu Val Gly Trp Asn Leu Thr
                   135
Tyr Ser Arg Ala Gly Val Ser Val Trp Val Gln Ala Val Glu Met Asp
       150
                     155
Arg Thr Leu His Lys Ile Lys Cys Arg Met Glu Cys Cys Asp Val Pro
             165
                              170
Ala Glu Thr Leu Tyr Asp Val Leu His Asp Ile Glu Tyr Arg Lys Lys
                           185
                                            190
Trp Asp Ser Asn Val Ile Glu Thr Phe Asp Ile Ala Arg Leu Thr Val
      195
                      200
Asn Ala Asp Val Gly Tyr Tyr Ser Trp Arg Cys Pro Lys Pro Leu Lys
                   215
                                    220
Asn Arg Asp Val Ile Thr Leu Arg Ser Trp Leu Pro Met Gly Ala Asp
             230
                                 235
Tyr Ile Ile Met Asn Tyr Ser Val Lys His Pro Lys Tyr Pro Pro Arg
                             250 255
             245
Lys Asp Leu Val Arg Ala Val Ser Ile Gln Thr Gly Tyr Leu Ile Gln
                           265
                                            270
Ser Thr Gly Pro Lys Ser Cys Val Ile Thr Tyr Leu Ala Gln Val Asp
     275
                       280
Pro Lys Gly Ser Leu Pro Lys Trp Val Val Asn Lys Ser Ser Gln Phe
                                   300
          295
Leu Ala Pro Lys Ala Met Lys Lys Met Tyr Lys Ala Cys Leu Lys Tyr
         310 315
Pro Glu Trp Lys Gln Lys His Leu Pro His Phe Lys Pro Trp Leu His
             325 330 335
Pro Glu Gln Ser Pro Leu Pro Ser Leu Ala Leu Ser Glu Leu Ser Val
                                            350
         340
                          345
Gln His Ala Asp Ser Leu Glu Asn Ile Asp Glu Ser Ala Val Ala Glu
     355
                       360
Ser Arg Glu Glu Arg Met Gly Gly Ala Gly Gly Glu Gly Ser Asp Asp
                                     380
                  375
   370
Asp Thr Ser Leu Tyr Ala Glu Ala Pro His Arg Phe Arg Glu Thr Glu
                       395
               390
Thr Gly Pro Gly Ala Gly Arg Ala Leu Gly Ala Ala Ala Pro Ala
             405
                             410
Leu Ser Pro Leu His Pro Pro Gly Thr Trp Trp His Arg Ala Arg Pro
         420 425
Arg Arg Val Leu Gln Pro Gly Trp Thr Glu Pro Gln
                        440
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<210> 2196
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<400> 2196

<211> 879

<212> PRT

<213> Homo sapiens

Arg Arg Lys Met Ala Gly Cys Arg Gly Ser Leu Cys Cys Cys Cys Arg Trp Cys Cys Cys Cys Gly Glu Arg Glu Thr Arg Thr Pro Glu Glu Leu 20 Thr Ile Leu Gly Glu Thr Gln Glu Glu Glu Asp Glu Ile Leu Pro Arg Lys Asp Tyr Glu Ser Leu Asp Tyr Asp Arg Cys Ile Asn Asp Pro Tyr 55 Leu Glu Val Leu Glu Thr Met Asp Asn Lys Lys Gly Arg Arg Tyr Glu 70 75 Ala Val Lys Trp Met Val Val Phe Ala Ile Gly Val Cys Thr Gly Leu Val Gly Leu Phe Val Asp Phe Phe Val Arg Leu Phe Thr Gln Leu Lys 105 100 Phe Gly Val Val Gln Thr Ser Val Glu Glu Cys Ser Gln Lys Gly Cys 120 125 Leu Ala Leu Ser Leu Leu Glu Leu Leu Gly Phe Asn Leu Thr Phe Val 135 140 Phe Leu Glu Ser Leu Leu Gly Leu Ile Glu Pro Val Glu Ala Gly Ser 150 155 Gly Ile Thr Glu Gly Lys Cys Tyr Leu Tyr Ala Arg Gln Val Pro Gly 170 Leu Val Arg Leu Pro Thr Leu Leu Trp Lys Ala Leu Gly Val Leu Leu 185 Thr Val Ala Ala Met Leu Leu Ile Gly Leu Gly Ser Pro Met Ile His 200 Ser Gly Ser Val Val Gly Ala Gly Leu Pro Gln Phe Gln Ser Ile Ser 215 220 Leu Arg Lys Ile Gln Phe Asn Phe Pro Tyr Phe Arg Ser Asp Arg Tyr Gly Lys Asp Lys Arg Asp Phe Val Ser Ala Gly Ala Ala Ala Gly Val 245 250 Ala Ala Phe Gly Ala Pro Ile Gly Gly Thr Leu Phe Ser Leu Glu 260 265 Glu Gly Ser Ser Phe Trp Asn Gln Gly Leu Thr Trp Lys Val Leu Phe 275 280 Cys Ser Met Ser Ala Thr Phe Thr Leu Asn Phe Phe Arg Ser Gly Ile 295 300 Gln Phe Gly Ser Trp Gly Ser Phe Gln Leu Pro Gly Leu Leu Asn Phe 310 315 Gly Glu Phe Lys Cys Ser Asp Ser Asp Lys Lys Cys His Leu Trp Thr 325 330 335 Ala Met Asp Leu Gly Phe Phe Val Val Met Gly Val Ile Gly Gly Leu 345 Leu Gly Ala Thr Phe Asn Cys Leu Asn Lys Arg Leu Ala Lys Tyr Arg 360 Met Arg Asn Val His Pro Lys Pro Lys Leu Val Arg Val Leu Glu Ser 375 380 Leu Leu Val Ser Leu Val Thr Thr Val Val Val Phe Val Ala Ser Met 390 395 Val Leu Gly Glu Cys Arg Gln Met Ser Ser Ser Ser Gln Ile Gly Asn 405 410 415 Asp Ser Phe Gln Leu Gln Val Thr Glu Asp Val Asn Ser Ser Ile Lys 420 425 Thr Phe Phe Cys Pro Asn Asp Thr Tyr Asn Asp Met Ala Thr Leu Phe 440 Phe Asn Pro Gln Glu Ser Ala Ile Leu Gln Leu Phe His Gln Asp Gly 455 460 Thr Phe Ser Pro Val Thr Leu Ala Leu Phe Phe Val Leu Tyr Phe Leu 470 475 Leu Ala Cys Trp Thr Tyr Gly Ile Ser Val Pro Ser Gly Leu Phe Val 490 Pro Ser Leu Leu Cys Gly Ala Ala Phe Gly Arg Leu Val Ala Asn Val

Leu Lys Ser Tyr Ile Gly Leu Gly His Ile Tyr Ser Gly Thr Phe Ala 520 Leu Ile Gly Ala Ala Ala Phe Leu Gly Gly Val Val Arg Met Thr Ile 540 535 Ser Leu Thr Val Ile Leu Ile Glu Ser Thr Asn Glu Ile Thr Tyr Gly 555 550 Leu Pro Ile Met Val Thr Leu Met Val Gly Lys Trp Thr Gly Asp Phe 565 570 Phe Asn Lys Gly Ile Tyr Asp Ile His Val Gly Leu Arg Gly Val Pro 585 Leu Leu Glu Trp Glu Thr Glu Val Glu Met Asp Lys Leu Arg Ala Ser 505 595 600 Asp Ile Met Glu Pro Asn Leu Thr Tyr Val Tyr Pro His Thr Arg Ile 615 620 Gln Ser Leu Val Ser Ile Leu Arg Thr Thr Val His His Ala Phe Pro 630 635 640 Val Val Thr Glu Asn Arg Gly Asn Glu Lys Glu Phe Met Lys Gly Asn 650 655 645 Gln Leu Ile Ser Asn Asn Ile Lys Phe Lys Lys Ser Ser Ile Leu Thr 665 660 Arg Ala Gly Glu Gln Arg Lys Arg Ser Gln Ser Met Lys Ser Tyr Pro 680 685 675 Ser Ser Glu Leu Arg Asn Met Cys Asp Glu His Ile Ala Ser Glu Glu 700 695 Pro Ala Glu Lys Glu Asp Leu Leu Gln Gln Met Leu Glu Arg Arg Tyr 710 715 Thr Pro Tyr Pro Asn Leu Tyr Pro Asp Gln Ser Pro Ser Glu Asp Trp 735 730 725 Thr Met Glu Glu Arg Phe Arg Pro Leu Thr Phe His Gly Leu Ile Leu 740 745 Arg Ser Gln Leu Val Thr Leu Leu Val Arg Gly Val Cys Tyr Ser Glu 755 **76**0 765 Ser Gln Ser Ser Ala Ser Gln Pro Arg Leu Ser Tyr Ala Glu Met Ala . 775 Glu Asp Tyr Pro Arg Tyr Pro Asp Ile His Asp Leu Asp Leu Thr Leu 785 790 795 800 Leu Asn Pro Arg Met Ile Val Asp Val Thr Pro Tyr Met Asn Pro Ser 805 810 Pro Phe Thr Val Ser Pro Asn Thr His Val Ser Gln Val Phe Asn Leu 820 825 Phe Arg Thr Met Gly Leu Arg His Leu Pro Val Val Asn Ala Val Gly 840 845 835 Glu Ile Val Gly Ile Ile Thr Arg His Asn Leu Thr Tyr Glu Phe Leu 855 860 Gln Ala Arg Leu Arg Gln His Tyr Gln Thr Ile 870

<210> 2197 <211> 664 <212> PRT <213> Homo sapiens

	_	_	_	_			•	_	_		_				
Va1 65	Pro	Tyr	Arg	Lys	11e 70	Thr	Pne	ASI	Pro	75	Cys	vaı	Val	116	Asp 80
Gly	Met	Pro	Pro	Gly 85	Val	Val	Phe	Lys	Ala 90	Pro	Gly	Tyr	Leu	Glu 95	Ile
Ser	Ser	Met	Arg 100	Arg	Ile	Leu	·Glu	Ala 105	Ala	Glu	Phe	Ile	Lys 110	Phe	Thr
Val	Ile	Arg 115	Pro	Leu	Pro	Gly	Leu 120	Glu	Leu	Ser	Asn	Gly 125	Glu	Tyr	Ser
Thr	Val 130	Gly	Lys	Arg	Lys	Ile 135	Asp	Gln	Glu	Gly	Arg 140	Val	Phe	Gln	Glu
Lys 145	Trp	Glu	Arg	Ala	Tyr 150	Phe	Phe	Val	Glu	Val 155	Gln	Asn	Ile	Ser	Thr 160
Сув	Leu	Ile	Сув	Lys 165	Arg	Ser	Met	Ser	Val 170	Ser	Lys	Glu	Tyr	Asn 175	Leu
Arg	Arg	His	Tyr 180	Gln	Thr	Asn	His	Ser 185	Lys	His	Tyr	Asp	Gln 190	Tyr	Met
	_	195	Arg	_		•	200				•	205	-		• -
_	210		Leu			215					220	•			
Val 225	Phe	Ala	Asn	Pro	Ser 230	Pro	Thr	Gln	ràs	Ser 235	Pro	Val	Gln	Pro	Val 240
Glu	Asp	Leu	Ala	Gly 245	Asn	Leu	Trp	Glu	Lys 250	Leu	Arg	Glu	Lys	Ile 255	Arg
Ser	Phe	Val	Ala 260	Tyr	Ser	Ile	Ala	11e 265	qaA	Glu	Ile	Thr	Asp 270	Ile	Asn
Asn	Thr	Thr 275	Gln	Leu	Ala	Ile	Phe 280	Ile	Arg	Gly	Val	Asp 285	Glu	Asn	Phe
_	290		Glu			295	_				300		_		-
Ser 305	Gly	Asn	Glu	Ile	Phe 310	Ser	Arg	Val	Glu	Lys 315	Ser	Leu	Lys	Asn	Phe 320
Сув	Ile	Asn	Trp	Ser 325	Lys	Leu	Val	Ser	Val 330	Ala	Ser	Thr	Gly	Thr 335	Pro
Pro	Met	Val	Asp 340	Ala	Asn	Asn	Gly	Leu 345	Val	Thr	ГÀЗ	Leu	Lys 350	Ser	Arg
		355	Phe	_	_	_	360			-		365		-	
	370		Glu			375			-		380		_		
385			Val		390					395	_		_		400
			Glu	405					410			_		415	_
			Leu 420					425					430		
		435	Arg				440	_				445			
	450	_	Gly			455					460		_	_	
Arg 465	qaA	Leu	Ala	Phe	Leu 470	Val	Asp	Met	Thr	Met 475	His	Leu	Asn	Ala	Leu 480
Asn	Ile	Ser	Leu	Gln 485		His	Ser	Gln	Ile 490	Val	Thr	Gln	Met	Tyr 495	qaA
Leu	Ile	Arg	Ala 500	Phe	Leu	Ala	Lys	Leu 505	Cys	Leu	Trp	Glu	Thr 510	His	Leu
	_	515	Asn				520				_	525			_
Asn	Glu 530	Ser	Asp	Gly	Leu	Asn 535	Tyr	Ile	Pro	Lys	11e 540	Ala	Glu	Leu	Lys
Thr 545	Glu	Phe	Gln	Lys	Arg 550	Leu	Ser	qaA	Phe	Lys 555	Leu	Tyr	Glu	Ser	Glu 560
Leu	Thr	Leu	Phe	Ser 565		Pro	Phe	Ser	Thr 570	Lys	Ile	Asp	Ser	Val 575	His

Glu Glu Leu Gln Met Glu Val Ile Asp Leu Gln Cys Asn Thr Val Leu 585 Lys Thr Lys Tyr Asp Lys Val Gly Ile Pro Glu Phe Tyr Lys Tyr Leu 605 595 600 Trp Gly Ser Tyr Pro Lys Tyr Lys His His Cys Ala Lys Ile Leu Ser 615 620 Met Phe Gly Ser Thr Tyr Ile Cys Glu Gln Leu Phe Ser Ile Met Lys 630 635 Leu Ser Lys Thr Lys Tyr Cys Ser Gln Leu Lys Asp Ser Gln Trp Asp 650 645 Ser Val Leu His Ile Ala Thr 660 663

<210> 2198 <211> 96 <212> PRT <213> Homo sapiens

<400> 2198 Ser Val Gln Tyr Leu Pro Gly Arg Pro Thr Arg Thr His Ala Ser Thr 10 Asp Ala Pro Leu Met Leu Lys Phe Thr Pro Leu Pro Ser Lys Thr Lys 30 25 20 Ala Ser Ala Pro Val Gln Cys Leu Leu Leu Met Ala Ala Thr Phe Ser 45 40 35 Pro Gln Gly Leu Ala Lys Pro His Ser Gly Thr Ile Pro Ile Thr Cys 60 50 55 Cys Phe Asn Ala Ile Asn Thr Lys Ile Pro Ile Gln Arg Leu Glu Ser 75 70 Tyr Thr Arg Ile Thr Asn Ile Gln Cys Pro Lys Glu Ala Val Met 90

<210> 2199 <211> 320 <212> PRT <213> Homo sapiens

<400> 2199 Leu Asp Phe Leu Cys His Arg Asp Met Gly Asp Asn Ile Thr Ser Ile 10 Thr Glu Phe Leu Leu Gly Phe Pro Val Gly Pro Arg Ile Gln Met 25 20 Leu Leu Phe Gly Leu Phe Ser Leu Phe Tyr Val Phe Thr Leu Leu Gly 45 40 Asn Gly Thr Ile Leu Gly Leu Ile Ser Leu Asp Ser Arg Leu His Ala 55 60 Pro Met Tyr Phe Phe Leu Ser His Leu Ala Val Val Asp Ile Ala Tyr 70 Ala Cys Asn Thr Val Pro Arg Met Leu Val Asn Leu Leu His Pro Ala 90 85 Lys Pro Ile Ser Phe Ala Gly Arg Met Met Gln Thr Phe Leu Phe Ser 100 105 110 Thr Phe Ala Val Thr Glu Cys Leu Leu Leu Val Val Met Ser Tyr Asp 120 115 Leu Tyr Val Ala Ile Cys His Pro Leu Arg Tyr Leu Ala Ile Met Thr 140 130 135 Trp Arg Val Cys Ile Thr Leu Ala Val Thr Ser Trp Thr Thr Gly Val 155

Leu Leu Ser Leu Ile His Leu Val Leu Leu Pro Leu Pro Phe Cys 165 170 Arg Pro Gln Lys Ile Tyr His Phe Phe Cys Glu Ile Leu Ala Val Leu 180 185 Lys Leu Ala Cys Ala Asp Thr His Ile Asn Glu Asn Met Val Leu Ala 200 Gly Ala Ile Ser Gly Leu Val Gly Pro Leu Ser Thr Ile Val Val Ser 210 215 220 Tyr Met Cys Ile Leu Cys Ala Ile Leu Gln Ile Gln Ser Arg Glu Val 235 230 Gln Arg Lys Ala Phe Cys Thr Cys Phe Ser His Leu Cys Val Ile Gly 245 250 Leu Phe Tyr Gly Thr Ala Ile Ile Met Tyr Val Gly Pro Arg Tyr Gly 260 265 270 Asn Pro Lys Glu Gln Lys Lys Tyr Leu Leu Leu Phe His Ser Leu Phe 280 Asn Pro Met Leu Asn Pro Leu Ile Cys Ser Leu Arg Asn Ser Glu Val 295 300 Lys Asn Thr Leu Lys Arg Val Leu Gly Val Glu Arg Ala Leu 310 315

<210> 2200 <211> 339 <212> PRT <213> Homo sapiens

<400> 2200 Met Gly Asn Asp Ser Val Ser Tyr Glu Tyr Gly Asp Tyr Ser Asp Leu 10 15 Ser Asp Arg Pro Val Asp Cys Leu Asp Gly Ala Cys Leu Ala Ile Asp 25 Pro Leu Arg Val Ala Pro Leu Pro Leu Tyr Ala Ala Ile Phe Leu Val 40 Gly Val Pro Gly Asn Ala Met Val Ala Trp Val Ala Gly Lys Val Ala 55 Arg Arg Arg Val Gly Ala Thr Trp Leu Leu His Leu Ala Val Ala Asp 75 70 Leu Leu Cys Cys Leu Ser Leu Pro Ile Leu Ala Val Pro Ile Ala Arg 85 90 Gly Gly His Trp Pro Tyr Gly Ala Val Gly Cys Arg Ala Leu Pro Ser 100 105 Ile Ile Leu Leu Thr Met Tyr Ala Ser Val Leu Leu Leu Ala Ala Leu 120 125 Ser Ala Asp Leu Cys Phe Leu Ala Leu Gly Pro Ala Trp Cys Leu Arg 135 140 Phe Ser Gly Ala Cys Gly Val Gln Val Ala Cys Gly Ala Ala Trp Thr 150 Leu Ala Leu Leu Thr Val Pro Ser Ala Ile Tyr Arg Arg Leu His 165 170 Gln Glu His Phe Pro Ala Arg Leu Gln Cys Val Val Asp Tyr Gly Gly 180 185 190 Ser Ser Ser Thr Glu Asn Ala Val Thr Ala Ile Arg Phe Leu Phe Gly 195 200 Phe Leu Gly Pro Leu Val Ala Val Ala Ser Cys His Ser Ala Leu Leu 215 220 Cys Trp Ala Ala Arg Arg Cys Arg Pro Leu Gly Thr Ala Ile Val Val 235 230 Gly Phe Phe Val Cys Trp Ala Pro Tyr His Leu Leu Gly Leu Val Leu 245 250 Thr Val Ala Ala Pro Asn Ser Ala Leu Leu Ala Arg Ala Leu Arg Ala

Glu Pro Leu Ile Val Gly Leu Ala Leu Ala His Ser Cys Leu Asn Pro 275 | 280 | 280 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 285 | 28

<210> 2201 <211> 770 <212> PRT <213> Homo sapiens

<400> 2201 Ala Ala Ser Pro Leu Arg Met Ser Arg Lys Gly Pro Arg Ala Glu 5 10 Val Cys Ala Asp Cys Ser Ala Pro Asp Pro Gly Trp Ala Ser Ile Ser 20 25 Arg Gly Val Leu Val Cys Asp Glu Cys Cys Ser Val His Arg Ser Leu 40 45 Gly Arg His Ile Ser Ile Val Lys His Leu Arg His Ser Ala Trp Pro 50 55 60 Pro Thr Leu Leu Gln Met Val His Thr Leu Ala Ser Asn Gly Ala Asn 70 75 Ser Ile Trp Glu His Ser Leu Leu Asp Pro Ala Gln Val Gln Ser Gly 85 90 Pro Ala Leu Lys Gln Thr Pro Lys Asp Lys Val His Pro Ile Lys Ser 100 105 110 Glu Phe Ile Arg Ala Lys Tyr Gln Met Leu Ala Phe Val His Lys Leu 115 120 125 Pro Cys Arg Asp Asp Gly Val Thr Ala Lys Asp Leu Ser Lys Gln 130 135 140 Leu His Ser Ser Val Arg Thr Gly Asn Leu Glu Thr Cys Leu Arg Leu 145 150 155 Leu Ser Leu Gly Ala Gln Ala Asn Phe Phe His Pro Glu Lys Gly Thr 170 Thr Pro Leu His Val Ala Ala Lys Ala Gly Gln Thr Leu Gln Ala Glu 185 180 190 Leu Leu Val Val Tyr Gly Ala Asp Pro Gly Ser Pro Asp Val Asn Gly 200 1.95 205 Arg Thr Pro Ile Asp Tyr Ala Arg Gln Ala Gly His His Glu Leu Ala 215 220 Glu Arg Leu Val Glu Cys Gln Tyr Glu Leu Thr Asp Arg Leu Ala Phe 230 235 Tyr Leu Cys Gly Arg Lys Pro Asp His Lys Asn Gly His Tyr Ile Ile 245 250 Pro Gln Met Ala Asp Ser Leu Asp Leu Ser Glu Leu Ala Lys Ala Ala 260 265 270 Lys Lys Leu Gln Ala Leu Ser Asn Arg Leu Phe Glu Glu Leu Ala 280 Met Asp Val Tyr Asp Glu Val Asp Arg Glu Asn Asp Ala Val Trp 295 300 Leu Ala Thr Gln Asn His Ser Thr Leu Val Thr Glu Arg Ser Ala Val . 310 315 Pro Phe Leu Pro Val Asn Pro Glu Tyr Ser Ala Thr Arg Asn Gln Gly 325 330 Arg Gln Lys Leu Ala Arg Phe Asn Ala Arg Glu Phe Ala Thr Leu Ile

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Ile Asp Ile Leu Ser Glu Ala Lys Arg Arg Gln Gln Gly Lys Ser Leu
                       360
Ser Ser Pro Thr Asp Asn Leu Glu Leu Ser Leu Arg Ser Gln Ser Asp
                    375
                                       380
Leu Asp Asp Gln His Asp Tyr Asp Ser Val Ala Ser Asp Glu Asp Thr
                390
                           395
Asp Gln Glu Pro Leu Arg Ser Thr Gly Ala Thr Arg Ser Asn Arg Ala
                      410
Arg Ser Met Asp Ser Ser Asp Leu Ser Asp Gly Ala Val Thr Leu Gln
              425
       420
Glu Tyr Leu Glu Leu Lys Lys Ala Leu Ala Thr Ser Glu Ala Lys Val
                                 445
                       440
Gln Gln Leu Met Lys Val Asn Ser Ser Leu Ser Asp Glu Leu Arg Arg
                    455
Leu Gln Arg Glu Ile His Lys Leu Gln Ala Glu Asn Leu Gln Leu Arg
                                  475
                470
Gln Pro Pro Gly Pro Val Pro Thr Pro Pro Leu Pro Ser Glu Arg Ala
             485
                               490
Glu His Thr Pro Met Ala Pro Gly Gly Ser Thr His Arg Arg Asp Arg
         500
                           505
Gln Ala Phe Ser Met Tyr Glu Pro Gly Ser Ala Leu Lys Pro Phe Gly
                                525
     515 520
Gly Pro Pro Gly Asp Glu Leu Thr Thr Arg Leu Gln Pro Phe His Ser
             535
                                    540
Thr Glu Leu Glu Asp Asp Ala Ile Tyr Ser Val His Val Pro Ala Gly
                550
                                  555
Leu Tyr Arg Ile Arg Lys Gly Val Ser Ala Ser Ala Val Pro Phe Thr
                              570
             565
Pro Ser Ser Pro Leu Leu Ser Cys Ser Gln Glu Gly Ser Arg His Thr
        580 585
Ser Lys Leu Ser Arg His Gly Ser Gly Ala Asp Ser Asp Tyr Glu Asn
595 600 605
Thr Gln Ser Gly Asp Pro Leu Leu Gly Leu Glu Gly Lys Arg Phe Leu
                    615
                                       620
Glu Leu Gly Lys Glu Glu Asp Phe His Pro Glu Leu Glu Ser Leu Asp
          630
                                 635
Gly Asp Leu Asp Pro Gly Leu Pro Ser Thr Glu Asp Val Ile Leu Lys
             645
                               650
Thr Glu Gln Val Thr Lys Asn Ile Gln Glu Leu Leu Arg Ala Ala Gln
          660
                           665
                                             670
Glu Phe Lys His Asp Ser Phe Val Pro Cys Ser Glu Lys Ile His Leu
      675
                      680
Ala Val Thr Glu Met Ala Ser Leu Phe Pro Lys Arg Pro Ala Leu Glu
          695
                                     700
Pro Val Arg Ser Ser Leu Arg Leu Leu Asn Ala Ser Ala Tyr Arg Leu
                         715
              710
Gln Ser Glu Cys Arg Lys Thr Val Pro Pro Glu Pro Gly Ala Pro Val
                               730
              725
Asp Phe Gln Leu Leu Thr Gln Gln Val Ile Gln Cys Ala Tyr Asp Ile
                            745
         740
                                              750
Ala Lys Ala Ala Lys Gln Leu Val Thr Ile Thr Thr Arg Glu Lys Lys
                       760
Gln
769
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<210> 2202 <211> 432 <212> PRT <213> Homo sapiens

<400> 2202

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Arg Ile Ser Lys Ile Gln Val Tyr Tyr Ser Thr Gly Tyr Ser Ser Arg
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Lys Met Asn Pro Thr Leu Gly Leu Ala Ile Phe Leu Ala Val Leu Leu
                            25
Thr Val Lys Gly Leu Leu Lys Pro Ser Phe Ser Pro Arg Asn Tyr Lys
                         40
       35
Ala Leu Ser Glu Val Gln Gly Trp Lys Gln Arg Met Ala Ala Lys Glu
                  55
                                60
Leu Ala Arg Gln Asn Met Asp Leu Gly Phe Lys Leu Leu Lys Lys Leu
                                 75
              70
Ala Phe Tyr Asn Pro Gly Arg Asn Ile Phe Leu Ser Pro Leu Ser Ile
                                90
Ser Thr Ala Phe Ser Met Leu Cys Leu Gly Ala Gln Asp Ser Thr Leu
                            105
          100
Asp Glu Ile Lys Gln Gly Phe Asn Phe Arg Lys Met Pro Glu Lys Asp
                     120
       115
Leu His Glu Gly Phe His Tyr Ile Ile His Glu Leu Thr Gln Lys Thr
                             140
            135
Gln Asp Leu Lys Leu Ser Ile Gly Asn Thr Leu Phe Ile Asp Gln Arg
                                  155
Leu Gln Pro Gln Arg Lys Phe Leu Glu Asp Ala Lys Asn Phe Tyr Ser
                               170
                                                175
             165
Ala Glu Thr Ile Leu Thr Asn Phe Gln Asn Leu Glu Met Ala Gln Lys
         180
                          185
Gln Ile Asn Asp Phe Ile Glu Ser Lys Thr His Gly Lys Ile Asn Asn
                                         205
               200
       195
Leu Ile Glu Asn Ile Asp Pro Gly Thr Val Met Leu Leu Ala Asn Tyr
                    215
                                      220
Ile Phe Phe Arg Ala Arg Trp Lys His Glu Phe Asp Pro Asn Val Thr
                 230
                           235 240
Lys Glu Glu Asp Phe Phe Leu Glu Lys Asn Ser Ser Val Lys Val Pro
                               250 . 255
Met Met Phe Arg Ser Gly Ile Tyr Gln Val Gly Tyr Asp Asp Lys Leu
                            265
                                              270
         260
Ser Cys Thr Ile Leu Glu Ile Pro Tyr Gln Lys Asn Ile Thr Ala Ile
                        280
      275
Phe Ile Leu Pro Asp Glu Gly Lys Leu Lys His Leu Glu Lys Gly Leu
                            300
                 295
Gln Val Asp Thr Phe Ser Arg Trp Lys Thr Leu Leu Ser Arg Arg Val
                                   315
                310
Val Asp Val Ser Val Pro Arg Leu His Met Thr Gly Thr Phe Asp Leu
                                330
                                                 335
Lys Lys Thr Leu Ser Tyr Ile Gly Val Ser Lys Ile Phe Glu Glu His
                            345
          340
Gly Asp Leu Thr Lys Ile Ala Pro His Arg Ser Leu Lys Val Gly Glu
      355
                       360
Ala Val Asn Lys Ala Glu Leu Lys Met Asp Glu Arg Gly Thr Glu Gly
                            380
                    375
Ala Ala Gly Thr Gly Ala Gln Thr Leu Pro Met Glu Thr Pro Leu Val
                 390
                                  395
Val Lys Ile Asp Lys Pro Tyr Leu Leu Leu Ile Tyr Ser Glu Lys Ile
                               410
Pro Ser Val Leu Phe Leu Gly Lys Ile Val Asn Pro Ile Gly Lys
                            425
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<210> 2203 <211> 1098 <212> PRT <213> Homo sapiens

<400> 2203

Met Thr His Ala Cys Asn Pro Ser Thr Leu Gly Gly Gln Gly Arg Arg 10 Ile Thr Arg Ser His Gly Arg Arg Arg Ser Ser Arg Gly Pro Val Ala Arg His Val Ala Ala Gly Ala Gly His Glu Asn Lys His Gly Gly Ser Arg Arg Phe Pro Ala Gly Val Ala Pro Arg Arg Ala Met Ala Asn Val 55 Ser Lys Lys Val Ser Trp Ser Gly Arg Asp Arg Asp Asp Glu Glu Ala Ala Pro Leu Leu Arg Arg Thr Ala Arg Pro Gly Gly Gly Thr Pro Leu 85 Leu Asn Gly Ala Gly Pro Gly Ala Ala Arg Gln Ser Pro Arg Ser Ala 105 110 Leu Phe Arg Val Gly His Met Ser Ser Val Glu Leu Asp Asp Glu Leu 120 115 Leu Glu Pro Asp Met Asp Pro Pro His Pro Phe Pro Lys Glu Ile Pro 135 140 His Asn Glu Lys Leu Leu Ser Leu Lys Tyr Glu Ser Leu Asp Tyr Asp 150 **, 155** Asn Ser Glu Asn Gln Leu Phe Leu Glu Glu Glu Arg Arg Ile Asn His 165 170 Thr Ala Phe Arg Thr Val Glu Ile Lys Arg Trp Val Ile Cys Ala Leu 190 185 180 Ile Gly Ile Leu Thr Gly Leu Val Ala Cys Phe Ile Asp Ile Val Val 200 205 Glu Asn Leu Ala Gly Leu Lys Tyr Arg Val Ile Lys Gly Ser Ile Leu 220 215 Pro Asn Ile Asp Lys Phe Thr Glu Lys Gly Gly Leu Ser Phe Ser Leu 230 235 Leu Leu Trp Ala Thr Leu Asn Ala Ala Phe Val Leu Val Gly Ser Val 250 245 Ile Val Ala Phe Ile Glu Pro Val Ala Ala Gly Ser Gly Ile Pro Gln 265 Ile Lys Cys Phe Leu Asn Gly Val Lys Ile Pro His Val Val Arg Leu 280 285 Lys Thr Leu Val Ile Lys Val Ser Gly Val Ile Leu Ser Val Val Gly 295 300 Gly Leu Ala Val Gly Lys Glu Gly Pro Met Ile His Ser Gly Ser Val 310 315 Ile Ala Ala Gly Ile Ser Gln Gly Arg Ser Thr Ser Leu Lys Arg Asp 330 . 335 325 Phe Lys Ile Phe Glu Tyr Phe Arg Arg Asp Thr Glu Lys Arg Asp Phe 340 345 Val Ser Ala Gly Ala Ala Ala Gly Val Ser Ala Ala Phe Gly Ala Pro 360 355 Val Gly Gly Val Leu Phe Ser Leu Glu Glu Gly Ala Ser Phe Trp Asn 375 380 Gln Phe Leu Thr Trp Arg Ile Phe Phe Ala Ser Met Ile Ser Thr Phe 395 390 Thr Leu Asn Phe Val Leu Ser Ile Tyr His Gly Asn Met Trp Asp Leu 410 405 Ser Ser Pro Gly Leu Ile Asn Phe Gly Arg Phe Asp Ser Glu Lys Met 420 425 Ala Tyr Thr Ile His Glu Ile Pro Val Phe Ile Ala Met Gly Val Val 440 Gly Gly Val Leu Gly Ala Val Phe Asn Ala Leu Asn Tyr Trp Leu Thr 455 460 Met Phe Arg Ile Arg Tyr Ile His Arg Pro Cys Leu Gln Val Ile Glu 470 475 Ala Val Leu Val Ala Ala Val Thr Ala Thr Val Ala Phe Val Leu Ile 490 Tyr Ser Ser Arg Asp Cys Gln Pro Leu Gln Gly Gly Ser Met Ser Tyr

Pro Leu Gln Leu Phe Cys Ala Asp Gly Glu Tyr Asn Ser Met Ala Ala 520 Ala Phe Phe Asn Thr Pro Glu Lys Ser Val Val Ser Leu Phe His Asp 535 540 Pro Pro Gly Ser Tyr Asn Pro Leu Thr Leu Gly Leu Phe Thr Leu Val 555 550 Tyr Phe Phe Leu Ala Cys Trp Thr Tyr Gly Leu Thr Val Ser Ala Gly 565 570 Val Phe Ile Pro Ser Leu Leu Ile Gly Ala Ala Trp Gly Arg Leu Phe 585 590 Gly Ile Ser Leu Ser Tyr Leu Thr Gly Ala Ala Ile Trp Ala Asp Pro 605 600 Gly Lys Tyr Ala Leu Met Gly Ala Ala Ala Gln Leu Gly Gly Ile Val 615 620 Arg Met Thr Leu Ser Leu Thr Val Ile Met Met Glu Ala Thr Ser Asn 635 630 Val Thr Tyr Gly Phe Pro Ile Met Leu Val Leu Met Thr Ala Lys Ile 650 655 645 Val Gly Asp Val Phe Ile Glu Gly Leu Tyr Asp Met His Ile Gln Leu 660 665 670 660 665 Gln Ser Val Pro Phe Leu His Trp Glu Ala Pro Val Thr Ser His Ser 680 685 Leu Thr Ala Arg Glu Val Met Ser Thr Pro Val Thr Cys Leu Arg Arg 700 695 Arg Glu Lys Val Gly Val Ile Val Asp Val Leu Ser Asp Thr Ala Ser 715 710 Asn His Asn Gly Phe Pro Val Val Glu His Ala Asp Asp Thr Gln Pro 730 735 725 Ala Arg Leu Gln Gly Leu Ile Leu Arg Ser Gln Leu Ile Val Leu Leu 740 745 750 745 740 Lys His Lys Val Phe Val Glu Arg Ser Asn Leu Gly Leu Val Gln Arg 755 760 Arg Leu Arg Leu Lys Asp Phe Arg Asp Ala Tyr Pro Arg Phe Pro Pro 775 780 Ile Gln Ser Ile His Val Ser Gln Asp Glu Arg Glu Cys Thr Met Asp 790 795 Leu Ser Glu Phe Met Asn Pro Ser Pro Tyr Thr Val Pro Gln Glu Ala 805 810 Ser Leu Pro Arg Val Phe Lys Leu Phe Arg Ala Leu Gly Leu Arg His 825 830 820 Leu Val Val Val Asp Asn Arg Asn Gln Val Val Gly Leu Val Thr Arg 840 Lys Asp Leu Ala Arg Tyr Arg Leu Gly Lys Arg Gly Leu Glu Glu Leu 855 860 Ser Leu Ala Gln Thr Gly Pro Lys Ala Gln Ala Thr Ala Glu Gly Arg 875 870 Val Ala Gly Ala Ala Gln Gln Pro Cys Gln Leu Arg Ala Val Thr Leu 890 895 885 Glu Asp Leu Gly Leu Leu Leu Ala Gly Gly Leu Ala Ser Pro Glu Pro 910 900 905 Leu Ser Leu Glu Glu Leu Ser Glu Arg Tyr Glu Ser Ser His Pro Thr 920 925 Ser Thr Ala Ser Val Pro Glu Gln Asp Thr Ala Lys His Trp Asn Gln 940 935 Leu Glu Gln Trp Val Val Glu Leu Gln Ala Glu Val Ala Cys Leu Arg 950 955 Glu His Lys Gln Arg Cys Glu Arg Ala Thr Arg Ser Leu Leu Arg Glu 965 970 Leu Leu Gln Val Arg Ala Arg Val Gln Leu Gln Gly Ser Glu Leu Arg 985 980 Gln Leu Gln Gln Glu Ala Arg Pro Ala Ala Gln Ala Pro Glu Lys Glu 1005 995 1000 Ala Pro Glu Phe Ser Gly Leu Gln Asn Gln Met Gln Ala Leu Asp Lys 1015 1020

Arg Leu Val Glu Val Arg Glu Ala Leu Thr Arg Leu Arg Arg Arg Gln
1025 1030 1035 1040

Val Gln Gln Glu Ala Glu Arg Arg Gly Ala Glu Gln Glu Ala Gly Leu
1045 1050 1055

Arg Leu Ala Lys Leu Thr Asp Leu Leu Gln Gln Glu Glu Gln Gly Arg
1060 1065 1070

Glu Val Ala Cys Gly Ala Leu Gln Lys Asn Gln Glu Asp Ser Ser Arg
1075 1080 1085

Arg Val Asp Leu Glu Val Ala Arg Met
1090 1095 1097

<210> 2204 <211> 822 <212> PRT <213> Homo sapiens

<400> 2204 Ala Gly Thr Trp Glu Pro Arg Pro Tyr Asp Gln Ala Lys Glu Thr Gly 10 Ala Pro Gly Ser Gln Pro Pro Val Pro Pro Met Glu Leu Arg Pro Trp 20 25 Leu Leu Trp Val Val Ala Ala Thr Gly Thr Leu Val Leu Leu Ala Ala . 35 40 45 Asp Ala Gln Gly Gln Lys Val Phe Thr Asn Thr Trp Ala Val Arg Ile 55 Pro Gly Gly Pro Ala Val Ala Asn Ser Val Ala Arg Lys His Gly Phe 70 75 Leu Asn Leu Gly Gln Ile Phe Gly Asp Tyr Tyr His Phe Trp His Arg 90 85 Gly Val Thr Lys Arg Ser Leu Ser Pro His Arg Pro Arg His Ser Arg 105 100 110 Leu Gln Arg Glu Pro Gln Val Gln Trp Leu Glu Gln Gln Val Ala Lys 115 120 Arg Arg Thr Lys Arg Asp Val Tyr Gln Glu Pro Thr Asp Pro Lys Phe 135 140 Pro Gln Gln Trp Tyr Leu Ser Gly Val Thr Gln Arg Asp Leu Met Val 155 150 Lys Ala Ala Trp Ala Gln Gly Tyr Thr Gly His Gly Ile Val Val Ser 165 170 175 Ile Leu Asp Asp Gly Ile Glu Lys Asn His Pro Asp Leu Ala Gly Asn 180 185 190 Tyr Asp Pro Gly Ala Ser Phe Asp Val Asn Asp Gln Asp Pro Asp Pro 195 200 205 Gln Pro Arg Tyr Thr Gln Met Asn Asp Asn Arg His Gly Thr Arg Cys 215 220 Ala Gly Glu Val Ala Ala Val Ala Asn Asn Gly Val Cys Gly Val Gly 235 Val Ala Tyr Asn Ala Arg Ile Gly Gly Val Arg Met Leu Asp Gly Glu 245 250 255 Val Thr Asp Ala Val Glu Ala Arg Ser Leu Gly Leu Asn Pro Asn His 260 265 Ile His Ile Tyr Ser Ala Ser Trp Gly Pro Glu Asp Asp Gly Lys Thr 280 Val Asp Gly Pro Ala Arg Leu Ala Glu Glu Ala Phe Phe Arg Gly Val 290 295 300 Ser Gln Gly Arg Gly Gly Leu Gly Ser Ile Phe Val Trp Ala Ser Gly 310 315 Asn Gly Gly Arg Glu His Asp Ser Cys Asn Cys Asp Gly Tyr Thr Asn 330 Ser Ile Tyr Thr Leu Ser Ile Ser Ser Ala Thr Gln Phe Gly Asn Val 345

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Pro Trp Tyr Ser Glu Ala Cys Ser Ser Thr Leu Ala Thr Thr Tyr Ser
                     360
      355
Ser Gly Asn Gln Asn Glu Lys Gln Ile Val Thr Thr Asp Leu Arg Gln
                            380
                  375
Lys Cys Thr Glu Ser His Thr Gly Thr Ser Ala Ser Ala Pro Leu Ala
               390
                                395
Ala Gly Ile Ile Ala Leu Thr Leu Glu Ala Asn Lys Asn Leu Thr Trp
                             410
            405
Arg Asp Met Gln His Leu Val Val Gln Thr Ser Lys Pro Ala His Leu
      420
                       425
Asn Ala Asn Asp Trp Ala Thr Asn Gly Val Gly Arg Lys Val Ser His
     435 440 445
Ser Tyr Gly Tyr Gly Leu Leu Asp Ala Gly Ala Met Val Ala Leu Ala
                   455
                                   460
Gln Asn Trp Thr Thr Val Ala Pro Gln Arg Lys Cys Ile Ile Asp Ile
              470
Leu Thr Glu Pro Lys Asp Ile Gly Lys Arg Leu Glu Val Arg Lys Thr
                 490 495
        485
Val Thr Ala Cys Leu Gly Glu Pro Asn His Ile Thr Arg Leu Glu His
                 505 510
        500
Ala Gln Ala Arg Leu Thr Leu Ser Tyr Asn Arg Arg Gly Asp Leu Ala
             520
                              525
Ile His Leu Val Ser Pro Met Gly Thr Arg Ser Thr Leu Leu Ala Ala
                                   540
                  535
Arg Pro His Asp Tyr Ser Ala Asp Gly Phe Asn Asp Trp Ala Phe Met
              550
                                555
Thr Thr His Ser Trp Asp Glu Asp Pro Ser Gly Glu Trp Val Leu Glu
                     570
          565
Ile Glu Asn Thr Ser Glu Ala Asn Asn Tyr Gly Thr Leu Thr Lys Phe
                                  590
                 585
        580
Thr Leu Val Leu Tyr Gly Thr Ala Pro Glu Gly Leu Pro Val Pro Pro
                              605
              600
Glu Ser Ser Gly Cys Lys Thr Leu Thr Ser Ser Gln Ala Cys Val Val
                                    620
                   615
Cys Glu Glu Gly Phe Ser Leu His Gln Lys Ser Cys Val Gln His Cys
               630
                                 635
Pro Pro Gly Phe Ala Pro Gln Val Leu Asp Thr His Tyr Ser Thr Glu
          645 650
Asn Asp Val Glu Thr Ile Arg Ala Ser Val Cys Ala Pro Cys His Ala
                                   670
  660 665
Ser Cys Ala Thr Cys Gln Gly Pro Ala Leu Thr Asp Cys Leu Ser Cys
                      680 685
Pro Ser His Ala Ser Leu Asp Pro Val Glu Gln Thr Cys Ser Arg Gln
                   695
                                    700
Ser Gln Ser Ser Arg Glu Ser Pro Pro Gln Gln Pro Pro Arg Leu
                710
                                 715
Pro Pro Glu Val Glu Ala Gly Gln Arg Leu Arg Ala Gly Leu Leu Pro
                            730
            725
Ser His Leu Pro Glu Val Val Ala Gly Leu Ser Cys Ala Phe Ile Val
                 745 750
       740
Leu Val Phe Val Thr Val Phe Leu Val Leu Gln Leu Arg Ser Gly Phe
                               765
                      760
Ser Phe Arg Gly Val Lys Val Tyr Thr Met Asp Arg Gly Leu Ile Ser
                  775
Tyr Lys Gly Leu Pro Pro Glu Ala Trp Gln Glu Glu Cys Pro Ser Asp
    . 790
                                795
Ser Glu Glu Asp Glu Gly Arg Gly Glu Arg Thr Ala Phe Ile Lys Asp
                             810
Gln Ser Ala Leu
          820
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<210> 2205

<211> 480 <212> PRT <213> Homo sapiens

450

<400> 2205 Gln Arg Pro Ala Ser Gln Leu Leu Ala Pro Phe Ala Ala Glu Ala Leu 10 Pro Gly Ala Pro Arg Ala Ala Met Ala Gln His Phe Ser Leu Ala Ala 25 Cys Asp Val Val Gly Phe Asp Leu Asp His Thr Leu Cys Arg Tyr Asn 40 Leu Pro Glu Ser Ala Pro Leu Ile Tyr Asn Ser Phe Ala Gln Phe Leu 55 60 Val Lys Glu Lys Gly Tyr Asp Lys Glu Leu Leu Asn Val Thr Pro Glu 75 Asp Trp Asp Phe Cys Cys Lys Gly Leu Ala Leu Asp Leu Glu Asp Gly . 85 90 Asn Phe Leu Lys Leu Ala Asn Asn Gly Thr Val Leu Arg Ala Ser His 105 100 Gly Thr Lys Met Met Thr Pro Glu Val Leu Ala Glu Ala Tyr Gly Lys 120 115 Lys Glu Trp Lys His Phe Leu Ser Asp Thr Gly Met Ala Cys Arg Ser 135 140 Gly Lys Tyr Tyr Phe Tyr Asp Asn Tyr Phe Asp Leu Pro Gly Ala Leu 150 155 Leu Cys Ala Arg Val Val Asp Tyr Leu Thr Lys Leu Asn Asn Gly Gln 170 175 Lys Thr Phe Asp Phe Trp Lys Asp Ile Val Ala Ala Ile Gln His Asn 180 ' 185 Tyr Lys Met Ser Ala Phe Lys Glu Asn Cys Gly Ile Tyr Phe Pro Glu 200 205 Ile Lys Arg Asp Pro Gly Arg Tyr Leu His Ser Arg Pro Glu Ser Val 215 220 Lys Lys Trp Leu Arg Gln Leu Lys Asn Ala Gly Lys Ile Leu Leu Leu 235 Ile Thr Ser Ser His Ser Asp Tyr Cys Arg Leu Leu Cys Ala Tyr Ile 250 245 Leu Gly Asn Asp Phe Thr Asp Leu Phe Asp Ile Val Ile Thr Asn Ala 270 260 265 Leu Lys Pro Gly Phe Phe Ser His Leu Pro Ser Gln Arg Pro Phe Arg 275 280 285 Thr Leu Glu Asn Asp Glu Glu Glu Glu Ala Leu Pro Ser Leu Asp Lys 295 300 Pro Gly Trp Tyr Ser Gln Gly Asn Ala Val His Leu Tyr Glu Leu Leu 310 315 Lys Lys Met Thr Gly Lys Pro Glu Pro Lys Val Val Tyr Phe Gly Asp 325 330 Ser Met His Ser Asp Ile Phe Pro Ala Arg His Tyr Ser Asn Trp Glu 340 345 Thr Val Leu Ile Leu Glu Glu Leu Arg Gly Asp Glu Gly Thr Arg Ser 360 355 365 Gln Arg Pro Glu Glu Ser Glu Pro Leu Glu Lys Lys Gly Lys Tyr Glu 375 380 Gly Pro Lys Ala Lys Pro Leu Asn Thr Ser Ser Lys Lys Trp Gly Ser 390 395 Phe Phe Ile Asp Ser Val Leu Gly Leu Glu Asn Thr Glu Asp Ser Leu 405 410 Val Tyr Thr Trp Ser Cys Lys Arg Ile Ser Thr Tyr Ser Thr Ile Ala 425 430 Ile Pro Ser Ile Glu Ala Ile Ala Glu Leu Pro Leu Asp Tyr Lys Phe 440 445 Thr Arg Phe Ser Ser Ser Asn Ser Lys Thr Ala Gly Tyr Tyr Pro Asn 455

Pro Pro Leu Val Leu Ser Ser Asp Glu Thr Leu Ile Ser Lys 465 470 475 478

<210> 2206 <211> 414 <212> PRT <213> Homo sapiens

<400> 2206 Ser Ser Pro Ser Val Phe Glu Phe Glu His Ala Val Gln Pro Val Phe 1 10 Thr Met Glu Phe Leu Lys Thr Cys Val Leu Arg Arg Asn Ala Cys Thr 20 25 Ala Val Cys Phe Trp Arg Ser Lys Val Val Gln Lys Pro Ser Val Arg Arg Ile Ser Thr Thr Ser Pro Arg Ser Thr Val Met Pro Ala Trp Val 55 60 Ile Asp Lys Tyr Gly Lys Asn Glu Val Leu Arg Phe Thr Gln Asn Met 70 75 Met Met Pro Ile Ile His Tyr Pro Asn Glu Val Ile Val Lys Val His 85 90 Ala Ala Ser Val Asn Pro Ile Asp Val Asn Met Arg Ser Gly Tyr Gly 100 105 110 Ala Thr Ala Leu Asn Met Lys Arg Asp Pro Leu His Val Lys Ile Lys 115 120 125 Gly Glu Glu Phe Pro Leu Thr Leu Gly Arg Asp Val Ser Gly Val Val 135 140 Met Glu Cys Gly Leu Asp Val Lys Tyr Phe Lys Pro Gly Asp Glu Val 150 155 Trp Ala Ala Val Pro Pro Trp Lys Gln Gly Thr Leu Ser Glu Phe Val 165 170 175 Val Val Ser Gly Asn Glu Val Ser His Lys Pro Lys Ser Leu Thr His 180 185 Thr Gln Ala Ala Ser Leu Pro Tyr Val Ala Leu Thr Ala Trp Ser Ala 200 Ile Asn Lys Val Gly Gly Leu Asn Asp Lys Asn Cys Thr Gly Lys Arg 215 220 Val Leu Ile Leu Gly Ala Ser Gly Gly Val Gly Thr Phe Ala Ile Gln 235 225 230 Val Met Lys Ala Trp Asp Ala His Val Thr Ala Val Cys Ser Gln Asp 245 250 Ala Ser Glu Leu Val Arg Lys Leu Gly Ala Asp Asp Val Ile Asp Tyr 260 265 Lys Ser Gly Ser Val Glu Glu Glu Lys Ser Leu Lys Pro Phe Asp 275 280 285 Phe Ile Leu Asp Asn Val Gly Gly Ser Thr Glu Thr Trp Ala Pro Asp 300 290 295 Phe Leu Lys Lys Trp Ser Gly Ala Thr Tyr Val Thr Leu Val Thr Pro 310 315 Phe Leu Leu Asn Met Asp Arg Leu Gly Ile Ala Asp Gly Met Leu Gln 325 330 Thr Gly Val Thr Val Gly Ser Lys Ala Leu Lys His Phe Trp Lys Gly 340 345 350 Val His Tyr Arg Trp Ala Phe Phe Met Ala Ser Gly Pro Cys Leu Asp 355 360 365 Asp Ile Ala Glu Leu Val Asp Ala Gly Lys Ile Arg Pro Val Ile Glu 375 Gln Thr Phe Pro Phe Ser Lys Val Pro Glu Ala Phe Leu Lys Val Glu 390 395

410

Arg Gly His Ala Arg Gly Lys Thr Val Ile Asn Val Val

405

<210> 2207 <211> 699 <212> PRT <213> Homo sapiens

<400> 2207 Leu Arg Arg Lys Met Thr Pro Gln Ser Leu Leu Gln Thr Thr Leu 5 10 Phe Leu Leu Ser Leu Leu Phe Leu Val Gln Gly Ala His Gly Arg Gly 25 His Arg Glu Asp Phe Arg Phe Cys Ser Gln Arg Asn Gln Thr His Arg 40 35 45 Ser Ser Leu His Tyr Lys Pro Thr Pro Asp Leu Arg Ile Ser Ile Glu 55 60 Asn Ser Glu Glu Ala Leu Thr Val His Ala Pro Phe Pro Ala Ala His 70 Pro Ala Ser Arg Ser Phe Pro Asp Pro Arg Gly Leu Tyr His Phe Cys 85 · 90 Leu Tyr Trp Asn Arg His Ala Gly Arg Leu His Leu Leu Tyr Gly Lys 100 105 110 Arg Asp Phe Leu Leu Ser Asp Lys Ala Ser Ser Leu Leu Cys Phe Gln 115 120 His Gln Glu Glu Ser Leu Ala Gln Gly Pro Pro Leu Leu Ala Thr Ser 135 130 140 Val Thr Ser Trp Trp Ser Pro Gln Asn Ile Ser Leu Pro Ser Ala Ala 155 150 Ser Phe Thr Phe Ser Phe His Ser Pro Pro His Thr Gly Ala His Asn 170 175 165 Ala Ser Val Asp Met Cys Glu Leu Lys Arg Asp Leu Gln Leu Leu Ser 185 Gln Phe Leu Lys His Pro Gln Lys Ala Ser Arg Arg Pro Ser Ala Ala 195 200 Pro Ala Ser Gln Gln Leu Gln Ser Leu Glu Ser Lys Leu Thr Ser Val 215 220 Arg Phe Met Gly Asp Met Gly Ser Phe Glu Glu Asp Arg Ile Asn Ala 230 235 Thr Val Trp Lys Leu Gln Pro Thr Ala Gly Leu Gln Asp Leu His Ile 245 250 His Ser Arg Gln Glu Glu Gln Ser Glu Ile Met Glu Tyr Ser Val 270 260 265 Leu Leu Pro Arg Thr Leu Phe Gln Arg Thr Lys Gly Arg Ser Gly Glu 275 280 285 275 280 285 Ala Glu Lys Arg Leu Leu Val Asp Phe Ser Ser Gln Ala Leu Phe 295 300 Gln Asp Lys Asn Ser Ser Gln Val Leu Gly Glu Lys Val Leu Gly Ile 315 310 Val Val Gln Asn Thr Lys Val Ala Asn Leu Thr Glu Pro Val Val Leu 325 330 Thr Phe Gln His Gln Leu Gln Pro Lys Asn Val Thr Leu Gln Cys Val 340 345 Phe Trp Val Glu Asp Pro Thr Leu Ser Ser Pro Gly His Trp Ser Ser 355 360 365 Ala Gly Cys Glu Thr Val Arg Arg Glu Thr Gln Thr Ser Cys Phe Cys 370 375 380 Asm His Leu Thr Tyr Phe Ala Val Leu Met Val Ser Ser Val Glu Val 390 395 Asp Ala Val His Lys His Tyr Leu Ser Leu Leu Ser Tyr Val Gly Cys 405 410 415 Val Val Ser Ala Leu Ala Cys Leu Val Thr Ile Ala Ala Tyr Leu Cys 420 425

Ser Arg Val Pro Leu Pro Cys Arg Arg Lys Pro Arg Asp Tyr Thr Ile 440 445 435 Lys Val His Met Asn Leu Leu Leu Ala Val Phe Leu Leu Asp Thr Ser 460 450 455 Phe Leu Leu Ser Glu Pro Val Ala Leu Thr Gly Ser Glu Ala Gly Cys 475 470 Arg Ala Ser Ala Ile Phe Leu His Phe Ser Leu Leu Thr Cys Leu Ser 490 485 Trp Met Gly Leu Glu Gly Tyr Asn Leu Tyr Arg Leu Val Val Glu Val 505 510 Phe Gly Thr Tyr Val Pro Gly Tyr Leu Leu Lys Leu Ser Ala Met Gly 515 520 525 Trp Gly Phe Pro Ile Phe Leu Val Thr Leu Val Ala Leu Val Asp Val 540 530 535 Asp Asn Tyr Gly Pro Ile Ile Leu Ala Val His Arg Thr Pro Glu Gly 550 555 Val Ile Tyr Pro Ser Met Cys Trp Ile Arg Asp Ser Leu Val Ser Tyr 570 565 Ile Thr Asn Leu Gly Leu Phe Ser Leu Val Phe Leu Phe Asn Met Ala 585 580 Met Leu Ala Thr Met Val Val Gln Ile Leu Arg Leu Arg Pro His Thr 595 600 605 Gln Lys Trp Ser His Val Leu Thr Leu Leu Cys Leu Ser Leu Val Leu 610 615 620 Gly Leu Pro Trp Ala Leu Ile Phe Phe Ser Phe Ala Ser Gly Thr Phe 630 635 Gln Leu Val Val Leu Tyr Leu Phe Ser Ile Ile Thr Ser Phe Gln Gly 650 645 Phe Leu Ile Phe Ile Trp Tyr Trp Ser Met Arg Leu Gln Ala Arg Gly 665 670 660 Gly Pro Ser Pro Leu Lys Ser Asn Ser Asp Ser Ala Arg Leu Pro Ile 680 685 675 Ser Ser Gly Ser Thr Ser Ser Ser Arg Ile 695 698 690

<210> 2208 <211> 76 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(76)

<223> Xaa = any amino acid or nothing

<210> 2209 <211> 99 <212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(99)

<223> Xaa = any amino acid or nothing

<400> 2209

 Phe Phe Phe Trp
 Arg Gln
 Ser Leu
 Ala
 Leu
 Leu
 Pro
 Arg Leu
 Glu
 Cys

 Ser Gly
 Ala
 Thr
 Gly
 Ala
 His
 Cys
 Asn
 Leu
 His
 Phe
 Pro
 Gly
 Ser
 Ser

 Asp
 Cys
 Pro
 Thr
 Ser
 Ala
 Ser
 Xaa
 Ile
 Ala
 Gly
 Ile
 Thr
 Gly
 Ala
 Cys

 Tyr
 His
 Ala
 Trp
 Leu
 Phe
 Val
 Phe
 Leu
 Ala
 Glu
 Thr
 Gly
 Thr
 His
 Fro
 Ser
 Asp
 Pro
 Ser
 Asp
 Pro</t

Trp Pro Ile

99

<210> 2210

<211> 189

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(189)

<223> Xaa = any amino acid or nothing

<400> 2210

Ala Leu Ser Thr Glu Thr Arg Thr Pro Asp Met Arg Arg Leu Leu Leu 10 Val Thr Ser Leu Val Val Leu Leu Trp Glu Ala Gly Ala Val Pro 20 25 Ala Pro Lys Val Pro Ile Lys Met Gln Val Lys His Trp Pro Ser Glu 40 45 Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg Val Val Glu Pro Pro Glu 55 60 Lys Asp Asp Gln Leu Val Val Leu Phe Pro Val Gln Lys Pro Lys Leu 70 75 Leu Thr Thr Glu Glu Lys Pro Arg Gly Gln Gly Arg Gly Pro Ile Leu 90 Pro Gly Thr Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val 105 100 Leu Ser Pro Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Glu 115 120 125 Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro Asn His 135 140 Gln Val Leu Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr His Pro 145 150 155 . 160 Gln Xaa Gly Ser Arg Gly His His Cys Pro Arg Pro Val Pro Arg Pro

<210> 2211

165

Arg Leu Leu Gly Leu Gly Pro Ser Leu Pro Cys Pro Ser

170

185

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<211> 72
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(72)
    <223> Xaa = any amino acid or nothing
    <400> 2211
Asn Tyr Val Cys Thr Ile Ala Phe Xaa Glu Lys Lys Met Gly Phe Xaa
               5
                                  10
1
Leu Ser Leu Ser Cys Leu Val Leu Leu Phe Val Leu Phe Leu Asp Cys
           20
                              25
Ile Leu Thr Thr Thr Thr Arg Ile Met Phe His Cys Thr Tyr Leu Phe
                          40
Ala Ser Val Cys Leu Ser Leu Leu Asn Thr Leu Leu Ser Pro Asn Cys
                      55
Leu Lys Ser Ala Met Ile Leu Gln
65
           70 72
    <210> 2212
    <211> 60
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(60)
    <223> Xaa = any amino acid or nothing
    <400> 2212
Leu Lys Tyr Tyr His Ile Thr Met Gly Ile Tyr Lys Thr Gly Lys Lys
                                  10
Val Ile Leu Xaa Lys Ser Ser Met Ser Asn Arg Phe Ser Val Ile Phe
                       25 . 30
      20
Tyr Lys Asn Ile Gln Lys Leu Ser Phe Ser Asn Tyr Val Tyr His Gln
      35
                    40
Asn Tyr Val Phe Ser Ser Asp Trp Ser Tyr Asp Phe
    50
                       55
    <210> 2213
    <211> 116
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(116)
    <223> Xaa = any amino acid or nothing
    <400> 2213
His Gly Ser Ser Cys Ala Leu Gly Asp Leu Ala Pro Gly Xaa Leu Pro
Ser Gly Pro Val Leu Ser Ser Pro Ala Val Arg Leu Xaa Arg Lys Pro
        20
                            25
Leu Val Trp Asp Ser Pro Ser Cys Leu Pro Ala Thr Gly Pro Thr Xaa 35 40 45
                        40
Gly Leu Val Leu Val Leu Gly Gly Pro Asp Cys Thr Xaa Trp Ala Arg
                       55
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Gly Gln His Glu His Lys Arg Met Arg Ala Pro Xaa Ser Cys Arg Val
65 70 75 80

Thr Val Asn Leu Ala Lys Lys Lys Lys Lys Thr Asp Gln Cys Ile Lys
85 90 95

Pro Asn Tyr Gln Ser Pro Pro Lys Glu Cys Asp Tyr Asn Ile Leu Ala
100 105 110

Asn Ser Val Ala
115 116

<210> 2214 <211> 258 <212> PRT <213> Homo sapiens

<400> 2214 Ser Asp Lys Gly Gly Lys Lys Ala Asp Arg Lys Asn His Leu Arg His 10 Ala Phe Pro Leu Leu Pro His Arg Val Arg Glu Arg Leu His Asp Pro 20 25 Lys Val Pro Val Asp Ala Asp His Val Gln Gly Gln Asp Pro Gly Arg 35 Ala Ala His Asp Ile His Gly Glu Asp Val Thr Glu Lys Val Ser Lys 55 60 Asp Pro Leu Ala Pro Asp Glu Val Gly Asp Thr Asp Glu Gly His Asp 70 75 Arg His Gly His Arg Glu Val Gly Gln Arg His Gly His Asp Gln Glu 85 90 Glu Val Ala Tyr Glu Glu Arg Ala Cys Glu Gly Gly Lys Phe Ala Thr 100 105 110 105 Val Glu Val Thr Asp Lys Pro Val Asp Glu Ala Leu Arg Glu Ala Met 115 120 125 Pro Lys Val Ala Lys Tyr Ala Gly Gly Thr Asn Asp Lys Gly Ile Gly 135 140 Met Gly Met Thr Val Pro Ile Ser Phe Ala Val Phe Pro Asn Glu Asp 150 155 Gly Ser Leu Gln Lys Lys Leu Lys Val Trp Phe Arg Ile Pro Asn Gln 165 170 175 Phe Gln Ser Asp Pro Pro Ala Pro Ser Asp Lys Ser Val Lys Ile Glu 180 185 190 Glu Arg Glu Gly Ile Thr Val Tyr Ser Met Gln Phe Gly Gly Tyr Ala 195 200 205 205 200 195 Lys Glu Ala Asp Tyr Val Ala Gln Ala Thr Arg Leu Arg Ala Ala Leu 215 220 Glu Gly Thr Ala Thr Tyr Arg Gly Asp Ile Tyr Phe Cys Thr Gly Tyr 230 235 Asp Pro Pro Met Lys Pro Tyr Gly Arg Arg Asn Glu Ile Trp Leu Leu 245 250

<210> 2215
<211> 41
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(41)
<223> Xaa = any amino acid or nothing

Lys Thr 258

<210> 2216 <211> 223 <212> PRT <213> Homo sapiens

<400> 2216 Thr Cys Thr Tyr Lys Tyr Leu Met Gly Trp Ile Arg Gly Arg Arg Ser Arg His Ser Trp Glu Met Ser Glu Phe His Asn Tyr Asn Leu Asp Leu 20 . 25 Lys Lys Ser Asp Phe Ser Thr Arg Trp Gln Lys Gln Arg Cys Pro Val 40 35 Val Lys Ser Lys Cys Arg Glu Asn Ala Ser Pro Phe Phe Cys Cys 55 Phe Ile Ala Val Ala Met Gly Ile Arg Phe Ile Ile Met Val Ala Ile 75 70 Trp Ser Ala Val Phe Leu Asn Ser Leu Phe Asn Gln Glu Val Gln Ile 85 90 95 Pro Leu Thr Glu Ser Tyr Cys Gly Pro Cys Pro Lys Asn Trp Ile Cys
100 105 110 Tyr Lys Asn Asn Cys Tyr Gln Phe Phe Asp Glu Ser Lys Asn Trp Tyr 125 120 Glu Ser Gln Ala Ser Cys Met Ser Gln Asn Ala Ser Leu Leu Lys Val 135 140 Tyr Ser Lys Glu Asp Gln Asp Leu Leu Lys Leu Val Lys Ser Tyr His 155 150 Trp Met Gly Leu Val His Ile Pro Thr Asn Gly Ser Trp Gln Trp Glu 165 170 175 Asp Gly Ser Ile Leu Ser Pro Asn Leu Leu Thr Ile Ile Glu Met Gln 185 190 180 Lys Gly Asp Cys Ala Leu Tyr Ala Ser Ser Phe Lys Gly Tyr Ile Glu 195 200 205 Asn Cys Ser Thr Pro Asn Thr Tyr Ile Cys Met Gln Arg Thr Val 210 215

<210> 2217
<211> 82
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(82)
<223> Xaa = any amino acid or nothing

<210> 2218
<211> 89
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(89)
<223> Xaa = any amino acid or nothing

<210> 2219
<211> 297
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(297)
<223> Xaa = any amino acid or nothing

<400> 2219 Pro Arg Arg Asp Ala Glu Asp Arg Asp Glu Ser Cys Leu Asn Pro Ala 10 Phe Pro Ile Gly Leu Leu His Pro Asn Ser Val Asn Ser Met Ala Arg 25 Phe Leu Thr Leu Cys Thr Trp Leu Leu Leu Leu Gly Pro Gly Leu Leu 35 40 Ala Thr Val Arg Ala Glu Cys Ser Gln Asp Cys Ala Thr Cys Ser Tyr 60 55 Arg Leu Val Arg Pro Ala Asp Ile Asn Phe Leu Ala Cys Val Met Glu 70 75 Cys Glu Gly Lys Leu Pro Ser Leu Lys Ile Trp Glu Thr Cys Lys Glu 85 Leu Leu Gln Leu Ser Lys Pro Glu Leu Pro Gln Asp Gly Thr Ser Thr 100 110 105 Leu Arg Glu Asn Ser Lys Pro Glu Glu Ser His Leu Leu Ala Lys Arg 115 120 125

Tyr Gly Gly Phe Met Lys Arg Tyr Gly Gly Phe Met Lys Lys Met Asp 135 130 Glu Leu Tyr Pro Met Glu Pro Glu Glu Glu Ala Asn Gly Ser Glu Ile 150 155 Leu Ala Lys Arg Tyr Gly Gly Phe Met Lys Lys Asp Ala Glu Glu Asp 170 165 Asp Ser Leu Ala Asn Ser Ser Asp Leu Leu Lys Glu Leu Leu Glu Thr 180 185 190 Gly Asp Asn Arg Glu Arg Ser His His Gln Asp Gly Ser Asp Asn Glu 200 205 195 Glu Glu Val Ser Lys Arg Tyr Gly Gly Phe Met Arg Gly Leu Lys Arg 210 215 220 Ser Pro Gln Leu Lys Glu Lys Ala Lys Glu Leu Gln Lys Arg Tyr Gly 230 235 Gly Phe Met Arg Arg Val Gly Pro Gln Lys Trp Xaa Met Thr Ser Pro 245 250 255 Gln Asn Arg Tyr Gly Gly Phe Leu Lys Arg Phe Ala Glu Ala Leu Pro 260 265 270 265 Ser Asp Glu Glu Glu Ser Tyr Ser Lys Glu Val Pro Glu Met Glu 275 280 Lys Arg Tyr Gly Gly Phe Met Arg Phe 290 295 297

<210> 2220 <211> 267 <212> PRT

<213> Homo sapiens

<221> misc_feature
<222> (1)...(267)
<223> Xaa = any amino acid or nothing

<400> 2220 Glu Ile His Gln Arg Leu Thr Glu Arg Thr Gln Phe Leu Asp Glu Ser 1 5 10 15 Arg Lys Asn Pro Asn Ser Kaa Gln Ala Asn Leu Leu Arg Gly Gly Gly 20 25 Ala Gly Gln Gly Arg Gly Arg Glu Gly Ala Glu Ser Gly Gly Ser Arg 35 40 Gly Glu Gly Pro Gly Ser Asp Gly Arg Leu Pro Ala Thr Gly Asp Phe 55 60 Trp Ser Pro Arg Ser Gln Arg Arg Gly Cys Cys Gly Arg Arg Ala Pro 75 Arg Pro Glu Ala Met Glu Asn Gly Ala Val Tyr Ser Pro Thr Thr Glu 90 85 Glu Asp Pro Gly Pro Ala Arg Gly Pro Arg Ser Gly Leu Ala Ala Tyr 100 105 110 Phe Phe Met Gly Arg Leu Pro Leu Leu Arg Arg Val Leu Lys Gly Leu 125 120 Gln Leu Leu Ser Leu Leu Ala Phe Ile Cys Glu Glu Val Val Ser 135 140 Gln Cys Thr Leu Cys Gly Gly Leu Tyr Phe Phe Glu Phe Val Ser Cys 150 155 Ser Ala Phe Leu Leu Ser Leu Leu Ile Leu Ile Val Tyr Cys Thr Pro 165 170 Phe Tyr Glu Arg Val Asp Thr Thr Lys Val Lys Ser Ser Asp Phe Tyr 180 185 190 Ile Thr Leu Gly Thr Gly Cys Val Phe Leu Leu Ala Ser Ile Ile Phe 195 200 205 Val Ser Thr His Asp Arg Thr Ser Ala Glu Ile Ala Ala Ile Val Phe 215

<210> 2221 <211> 129 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(129)

<223> Xaa = any amino acid or nothing

<400> 2221 Ser Cys Ala Met Cys Ser Gly Leu Leu Xaa Leu Leu Pro Ile Trp 10 Leu Ser Trp Thr Leu Gly Thr Arg Gly Ser Glu Pro Arg Ser Val Asn Asp Pro Gly Asn Met Ser Phe Val Lys Glu Thr Val Asp Lys Leu Leu 35 40 Thr Gly Phe Arg Cys Phe Arg Glu Arg Glu Ala Ala Pro Arg Arg Ala 50 55 Leu Arg Gly Ala Ala Leu Pro Gly Glu Ser Glu Ala Gly Asp Pro Glu 70 75 Ser Leu Arg Ser Ser Val Asn Ala Asp Trp Ile Gln Tyr Ser Asp Leu 90 Trp Glu Ala Glu Val Ser Thr Pro Arg Cys Glu Ala Gly Phe Cys Gln 105 100 110 Glu Cys Phe Arg Thr Pro Gly Asn Gln Glu Lys Asp Gly Pro Phe Ile 120 125 Cys

<210> 2222
<211> 234
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(234)
<223> Xaa = any amino acid or nothing

129

<400> 2222 Phe Val Asp Ile Val Ser Val Val Glu Phe Pro His Cys Pro Glu Ala 5 10 Arg Phe Pro Ala Gln His Gly Gln Asp Ser Lys Arg Leu Thr Leu Cys 20 25 Pro Gly Gly Ser Xaa Pro Gln Ala Thr Leu His Leu Asp Arg Met Arg 40 Val Ser Ala Ser Pro Thr Lys Glu Ile Gln Val Lys Lys Tyr Lys Cys 55 60 Gly Leu Ile Lys Pro Cys Pro Ala Asn Tyr Phe Ala Phe Lys Ile Cys 70 75 Ser Gly Ala Ala Asn Val Val Gly Pro Thr Met Cys Phe Glu Asp Arg 90

Met Ile Met Ser Pro Val Lys Asn Asn Val Gly Arg Gly Leu Asn Ile 105 100 Ala Leu Val Asn Gly Thr Thr Gly Ala Val Leu Gly Gln Lys Ala Phe 125 120 115 Asp Met Tyr Ser Gly Asp Val Met His Leu Val Lys Phe Leu Lys Glu 135 140 130 Ile Pro Gly Gly Ala Leu Val Leu Val Ala Ser Tyr Asp Asp Pro Gly 150 155 145 Thr Lys Met Asn Asp Glu Ser Arg Lys Leu Phe Ser Asp Leu Gly Ser 170 175 165 Ser Tyr Ala Lys Gln Leu Gly Phe Arg Asp Ser Trp Val Phe Ile Gly 190 185 180 Ala Lys Asp Leu Arg Gly Lys Ser Pro Phe Glu Gln Phe Leu Lys Glu 200 205 195 Gln Pro Gln Thr Gln Asn Lys Tyr Glu Gly Trp Pro Glu Leu Leu Glu 210 215 Met Glu Gly Cys Met Pro Pro Lys Pro Phe 230

<210> 2223 <211> 51

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(51)

<223> Xaa = any amino acid or nothing

<400> 2223

<210> 2224

<211> 249

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (249)

<223> Xaa = any amino acid or nothing

<400> 2224

 Pro
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 Thr
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 Cys
 Val
 Leu
 Trp
 Ala
 Thr
 Leu
 His
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 Pro
 Ala
 Ser

 Thr
 Arg
 Lys
 Ala
 Pro
 Glu
 Ala
 Glu
 Cys
 Gly
 Met
 Ile
 Ser
 Ile
 Thr
 Glu
 Ala
 Fro
 Glu
 Ala
 Fro
 Glu
 Met
 Ile
 Ser
 Ile
 Thr
 Glu
 Fro
 Glu
 Met
 Ile
 Ser
 Ile
 Thr
 He
 Ile
 Ile
 Thr
 Glu
 Ile
 Ile

Thr Phe Trp Phe Phe Phe Gln Arg His Lys Leu Lys Gly Thr Ser Phe 85 90 Leu Leu Gly Gly Val Val Ile Val Leu Leu Arg Trp Pro Leu Leu Gly 100 105 110 Met Phe Leu Glu Thr Tyr Gly Phe Phe Ser Leu Phe Lys Gly Phe Phe 115 120 Pro Val Ala Phe Gly Phe Leu Gly Asn Val Cys Asn Ile Pro Phe Leu 135 140 Gly Ala Leu Phe Arg Arg Leu Gln Gly Thr Ser Ser Met Val Xaa Lys 150 155 Thr Glu Met Ser Ser Leu Asn Leu Asp His Trp Leu Lys Gly Ala Lys 165 170 Arg Glu Glu Trp Glu Pro Pro Pro Gln Ser Pro Ala Leu Thr His Ser 180 185 190 Pro Thr Tyr Pro Gly Pro Pro Gln Val Gln Lys Glu Arg Asn Gly Ala 200 205 195 Glu Gln Leu Thr Ser Asn Pro Gln Val Asp Ser Arg Gly Cys Gln Glu 215 220 Ala Glu Met Gln Thr Pro Arg Arg Leu Gly Trp Gly Trp Tyr His Thr 230 235 Leu Thr Leu Tyr Leu Trp Glu Glu Lys 245

<210> 2225

<211> 53

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) . . . (53)

<223> Xaa = any amino acid or nothing

<400> 2225

Gly Glu Lys Pro Val Pro Thr Trp Leu Gln Asp Glu Ala Gly Gln Trp Leu Leu Gly Phe Val Ala Gln Pro Trp Gly Trp Pro Gly Ser Glu Arg 20 25 30 . His Glu Pro Xaa His Gly Gly Val Leu Phe Arg Leu Gly Pro Ser Ala 35 40 45 Pro Pro Gly Lys Leu 50

<210> 2226

<211> 61

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(61)

<223> Xaa = any amino acid or nothing

<400> 2226

Tyr Ser Cys Leu Cys Phe Leu Phe Lys His Ile Thr Ser Phe Lys Asn 10 Ser Val His Ile Trp Leu Gly Thr Val Val His Ala Tyr Asn Pro Asn 20 25 30 Ile Leu Gly Gly Gln Gly Gly Trp Ile Ala Xaa Gly Gln Glu Phe Lys 35

Thr Ser Leu Gly Asn Thr Val Arg Pro Cys Leu Tyr Lys 50 55 60 61

<210> 2227 <211> 312 <212> PRT <213> Homo sapiens

<400> 2227 Gly Cys Ala Pro Asp Thr Arg Phe Phe Val Pro Glu Pro Gly Gly Arg 5 10 Gly Ala Ala Pro Trp Val Ala Leu Val Ala Arg Gly Gly Cys Thr Phe 25 Lys Asp Lys Val Leu Val Ala Ala Arg Arg Asn Ala Ser Ala Val Val 45 40 Leu Tyr Asn Glu Glu Arg Tyr Gly Asn Ile Thr Leu Pro Met Ser His 55 Ala Gly Thr Gly Asn Ile Val Val Ile Met Ile Ser Tyr Pro Lys Gly 70 75 Arg Glu Ile Leu Glu Leu Val Gln Lys Gly Ile Pro Val Thr Met Thr 85 90 95 Ile Gly Val Gly Thr Arg His Val Gln Glu Phe Ile Ser Gly Gln Ser 110 105 100 Val Val Phe Val Ala Ile Ala Phe Ile Thr Met Met Ile Ile Ser Leu 120 Ala Trp Leu Ile Phe Tyr Tyr Ile Gln Arg Phe Leu Tyr Thr Gly Ser 130 . 135 140 Gln Ile Gly Ser Gln Ser His Arg Lys Glu Thr Lys Lys Val Ile Gly 150 155 Gln Leu Leu His Thr Val Lys His Gly Glu Lys Gly Ile Asp Val 165 170 175 Asp Ala Glu Asn Cys Ala Val Cys Ile Glu Asn Phe Lys Val Lys Asp 185 190 Ile Ile Arg Ile Leu Pro Cys Lys His Ile Phe His Arg Ile Cys Ile 200 Asp Pro Trp Leu Leu Asp His Arg Thr Cys Pro Met Cys Lys Leu Asp 215 220 Val Ile Lys Ala Leu Gly Tyr Trp Gly Glu Pro Gly Asp Val Gln Glu 230 235 Met Pro Ala Pro Glu Ser Pro Pro Gly Arg Asp Pro Ala Ala Asn Leu 245 250 Ser Leu Ala Leu Pro Asp Asp Asp Gly Ser Asp Glu Ser Ser Pro Pro 265 260 Ser Ala Ser Pro Ala Glu Ser Glu Pro Gln Cys Asp Pro Ser Phe Lys 275 280 Gly Asp Ala Gly Glu Asn Thr Ala Leu Leu Glu Ala Gly Arg Ser Asp 300 290 295 Ser Arg His Gly Gly Pro Ile Ser 310 312

<210> 2228 <211> 305 <212> PRT <213> Homo sapiens

<400> 2228
Glu Arg Ser Leu Leu Cys Lys Val Asp Val Arg Trp Ile Tyr Val Ser
1 5 10 15

Glu Gly Thr Lys Thr Gln Arg Arg His Arg Gln Gly Ser Leu Arg Arg Gly Arg Met Gln Ala Ala Cys Trp Tyr Val Leu Phe Leu Leu Gln Pro 40 Thr Val Tyr Leu Val Thr Cys Ala Asn Leu Thr Asn Gly Gly Lys Ser 55 Glu Leu Leu Lys Ser Gly Ser Ser Lys Ser Thr Leu Lys His Ile Trp Thr Glu Ser Ser Lys Asp Leu Ser Ile Ser Arg Leu Leu Ser Gln Thr 90 85 Phe Arg Gly Lys Glu Asn Asp Thr Asp Leu Asp Leu Arg Tyr Asp Thr 100 105 110 Pro Glu Pro Tyr Ser Glu Gln Asp Leu Trp Asp Trp Leu Arg Asn Ser 120 125 Thr Asp Leu Gln Glu Pro Arg Pro Arg Ala Lys Arg Arg Pro Ile Val 140 130 135 Lys Thr Gly Lys Phe Lys Lys Met Phe Gly Trp Gly Asp Phe His Ser 155 150 Asn Ile Lys Thr Val Lys Leu Asn Leu Leu Ile Thr Gly Lys Ile Val 165 170 Asp His Gly Asn Gly Thr Phe Ser Val Tyr Phe Arg His Asn Ser Thr 185 180 190 Gly Gln Gly Asn Val Ser Val Ser Leu Val Pro Pro Thr Lys Ile Val 195 200 205 Glu Phe Asp Leu Ala Gln Gln Thr Val Ile Asp Ala Lys Asp Ser Lys 215 Ser Phe Asn Cys Arg Ile Glu Tyr Glu Lys Val Asp Lys Ala Thr Lys 230 235 Asn Thr Leu Cys Asn Tyr Asp Pro Ser Lys Thr Cys Tyr Gln Glu Gln 245 250 255 Thr Gln Ser His Val Ser Trp Leu Cys Ser Lys Pro Phe Lys Val Ile 265 Cys Ile Tyr Ile Ser Phe Tyr Ser Thr Asp Tyr Lys Leu Val Gln Lys 280 285 Val Cys Pro Asp Tyr Asn Tyr His Ser Asp Thr Pro Tyr Phe Pro Ser 295 300 305

<210> 2229 <211> 29 <212> PRT <213> Homo sapiens

<210> 2230 <211> 188 <212> PRT <213> Homo sapiens

<400> 2230
Asp Ala Ala Val Ala Met Thr Ala Gln Gly Gly Leu Val Ala Asn Arg
1 5 10 15

Gly Arg Arg Phe Lys Trp Ala Ile Glu Leu Ser Gly Pro Gly Gly Gly 25 Ser Arg Gly Arg Ser Asp Arg Gly Ser Gly Gln Gly Asp Ser Leu Tyr 40 35 Pro Val Gly Tyr Leu Asp Lys Gln Val Pro Asp Thr Ser Val Gln Glu 55 60 Thr Asp Arg Ile Leu Val Glu Lys Arg Cys Trp Asp Ile Ala Leu Gly Pro Leu Lys Gln Ile Pro Met Asn Leu Phe Ile Met Tyr Met Ala Gly 85 90 Asn Thr Ile Ser Ile Phe Pro Thr Met Met Val Cys Met Met Ala Trp 105 100 Arg Pro Ile Gln Ala Leu Met Ala Ile Ser Ala Thr Phe Lys Met Leu 120 Glu Ser Ser Ser Gln Lys Phe Leu Gln Gly Leu Val Tyr Leu Ile Gly 135 140 Asn Leu Met Gly Leu Ala Leu Ala Val Tyr Lys Cys Gln Ser Met Gly 150 155 Leu Leu Pro Thr His Ala Ser Asp Trp Leu Ala Phe Ile Glu Pro Pro 170 165 Glu Arg Met Glu Phe Ser Gly Gly Gly Leu Leu 185 180

<210> 2231 <211> 386 <212> PRT <213> Homo sapiens

245

<400> 2231 Ser Pro Gln Lys Thr Met Arg Ser His Thr Ile Thr Met Thr Thr 10 15 · Ser Val Ser Ser Trp Pro Tyr Ser Ser His Arg Met Arg Phe Ile Thr 25 Asn His Ser Asp Gln Pro Pro Gln Asn Phe Ser Ala Thr Pro Asn Val 40 Thr Thr Cys Pro Met Asp Glu Lys Leu Leu Ser Thr Val Leu Thr Thr 55 60 Ser Tyr Ser Val Ile Phe Ile Val Gly Leu Val Gly Asn Ile Ile Ala 70 75 Leu Tyr Val Phe Leu Gly Ile His Arg Lys Arg Asn Ser Ile Gln Ile 85 90 Tyr Leu Leu Asn Val Ala Ile Ala Asp Leu Leu Leu Ile Phe Cys Leu 100 105 Pro Phe Arg Ile Met Tyr His Ile Asn Gln Asn Lys Trp Thr Leu Gly 120 115 125 Val Ile Leu Cys Lys Val Val Gly Thr Leu Phe Tyr Met Asn Met Tyr 135 140 Ile Ser Ile Ile Leu Leu Gly Phe Ile Ser Leu Asp Arg Tyr Ile Lys 150 155 Ile Asn Arg Ser Ile Gln Gln Arg Lys Ala Ile Thr Thr Lys Gln Ser 165 170 Ile Tyr Val Cys Cys Ile Val Trp Met Leu Ala Leu Gly Gly Phe Leu 180 185 190 Thr Met Ile Ile Leu Thr Leu Lys Lys Gly Gly His Asn Ser Thr Met 195 200 205 200 Cys Phe His Tyr Arg Asp Lys His Asn Ala Lys Gly Glu Ala Ile Phe 215 220 Asn Phe Ile Leu Val Val Met Phe Trp Leu Ile Phe Leu Leu Ile Ile 230 235 Leu Ser Tyr Ile Lys Ile Gly Lys Asn Leu Leu Arg Ile Ser Lys Arg

250

Arg Ser Lys Phe Pro Asn Ser Gly Lys Tyr Ala Thr Thr Ala Arg Asn 260 265 270 Ser Phe Ile Val Leu Ile Ile Phe Thr Ile Cys Phe Val Pro Tyr His 275 280 Ala Phe Arg Phe Ile Tyr Ile Ser Ser Gln Leu Asn Val Ser Ser Cys 290 295 300 Tyr Trp Lys Glu Ile Val His Lys Thr Asn Glu Ile Met Leu Val Leu 305 310 315 320 Ser Ser Phe Asn Ser Cys Leu Asp Pro Val Met Tyr Phe Leu Met Ser 325 330 335 Ser Asn Ile Arg Lys Ile Met Cys Gln Leu Leu Phe Arg Arg Phe Gln 340 345 350 Gly Glu Pro Ser Arg Ser Glu Ser Thr Ser Glu Phe Lys Pro Gly Tyr 355 360 365 Ser Leu His Asp Thr Ser Val Ala Val Lys Ile Gln Ser Ser Lys 370 375 Ser Thr 385 386

<210> 2232 <211> 104 <212> PRT

<213> Homo sapiens

<400> 2232

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 Leu Lys Glu Phe Ser Val Leu Leu Asn Gln Gln Val Phe Asn Asp Pro 20

 Leu Val Ser Glu Glu Asp Met Val Thr Val Val Glu Asp Trp Met Asn 35

 Fhe Tyr Ile Asn Tyr Tyr Arg Gln Gln Val Thr Gly Glu Pro Gln Glu 55

 Arg Asp Lys Ala Leu Gln Gln Glu Leu Arg Gln Gln Glu Leu Asn 65

 Asn Pro Phe Leu Ala Lys Tyr Tyr Arg Arg Asp Phe Leu Lys Ser His Glu Leu 85

 Pro Ser His Pro Pro Pro Pro Ser Ser 100

<210> 2233 <211> 61

<212> PRT

<213> Homo sapiens

<400> 2233

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<211> 73

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<210> 2236 <211> 169 <212> PRT <213> Homo sapiens

<400> 2236 Ala Pro Glu Asn Pro Phe Ser Arg Gln His Phe Asn Ser Glu Thr Lys 10 Val Lys Leu Ser Leu Lys Thr Gly Thr Trp Leu Gly Asn His Ala His 25 20 Leu Gly Glu His Phe Ser Thr His His Glu Leu Gly Leu Ser Gly Lys 40 35 Val Val Gly Phe Leu Val Lys Asn Ile Leu Glu Val Ile Arg Asn Gly 60 55 Gly Met Glu Thr Arg His Pro Gly Lys Val Ser Ser Trp Phe His Arg 75 65 Trp Asp Ser Arg Ala Glu Gln His Asn His Ala Glu His His Glu Asp 85 90 Val Pro Gln Gly Asp Glu Asp Ser Lys Val Ser Glu Ala Gln Glu 100 105 110 Phe Pro Asp Val Val Thr Cys Ala Gly Leu Pro Gly Leu Leu Pro Lys 115 120

Ala Leu Arg Val Leu Leu Phe Gln Leu Lys Val Gln His Arg Pro Gly
130 135 140

Ile His Gln Gln Arg Pro Glu Gln Gln Asp Val Ser Asp His Arg Tyr
145 150 155 160

Gly Arg Ser Val Arg Gln Asn Arg Lys
165 169

<210> 2237 <211> 77 <212> PRT <213> Homo sapiens

<210> 2238 <211> 352 <212> PRT <213> Homo sapiens

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Val Asp Cys Ile Trp Thr Ile Lys Ala Thr Pro Lys Ala Lys Ile Tyr 230 Leu Arg Phe Leu Asp Tyr Gln Met Glu His Ser Asn Glu Cys Lys Arg 250 245 Asn Phe Val Ala Val Tyr Asp Gly Ser Ser Ser Ile Glu Asn Leu Lys 260 270 265 260 Ala Lys Phe Cys Ser Thr Val Ala Asn Asp Val Met Leu Lys Thr Gly 280 285 Ile Gly Val Ile Arg Met Trp Ala Asp Glu Gly Ser Arg Leu Asn Arg 300 295 Phe Arg Met Leu Phe Thr Ser Phe Gly Gly Ala Ser Pro Ala Gln Ala 310 315 Ala Leu Ser Phe Cys His Ser Asn Met Cys Ile Asn Asn Ser Leu Val 330 325 Cys Asn Gly Val Gln Asn Cys Ala Tyr Pro Trp Asp Glu Asn His Cys 345

<210> 2239 <211> 908 <212> PRT <213> Homo sapiens

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Lys Gly Glu Glu Asp Thr Phe Ser Asp Leu Ile Trp Ser Asn Pro Arg
   290
                   295
                                 300
Tyr Leu Ile Gly Ser Gly Asp Asn Pro Thr Ile Val Gln Glu Gly Cys
                  310
Arg Tyr Asn Val Met His Val Ala Ala Lys Glu Asn Gln Ala Ser Ile
                                330
              325
Cys Gln Leu Thr Leu Asp Val Leu Glu Asn Pro Asp Phe Met Arg Leu
           340
                             345
Met Tyr Pro Asp Asp Asp Glu Ala Met Leu Gln Lys Arg Ile Arg Tyr
                         360
Val Val Asp Leu Tyr Leu Asn Thr Pro Asp Lys Met Gly Tyr Asp Thr
                      375
                                         380
Pro Leu His Phe Ala Cys Lys Phe Gly Asn Ala Asp Val Val Asn Val
                  390
                                    395
Leu Ser Ser His His Leu Ile Val Lys Asn Ser Arg Asn Lys Tyr Asp
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                                 410
Lys Thr Pro Glu Asp Val Ile Cys Glu Arg Ser Lys Asn Lys Ser Val
                             425
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Glu Leu Lys Glu Arg Ile Arg Glu Tyr Leu Lys Gly His Tyr Tyr Val
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                                              445
Pro Leu Leu Arg Ala Glu Glu Thr Ser Ser Pro Val Ile Gly Glu Leu
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Trp Ser Pro Asp Gln Thr Ala Glu Ala Ser His Val Ser Arg Tyr Gly
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Gly Ser Pro Arg Asp Pro Val Leu Thr Leu Arg Ala Phe Ala Gly Pro
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Leu Ser Pro Ala Lys Ala Glu Asp Phe Arg Lys Leu Trp Lys Thr Pro
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Pro Arg Glu Lys Ala Gly Phe Leu His His Val Lys Lys Ser Asp Pro
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                                             525
Glu Arg Gly Phe Glu Arg Val Gly Arg Glu Leu Ala His Glu Leu Gly
                      535
                                         540
Tyr Pro Trp Val Glu Tyr Trp Glu Phe Leu Gly Cys Phe Val Asp Leu
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                                     555
Ser Ser Gln Glu Gly Leu Gln Arg Leu Glu Glu Tyr Leu Thr Gln Gln
              565
                                  570
Glu Ile Gly Lys Lys Ala Gln Gln Glu Thr Gly Glu Arg Glu Ala Ser
          580
                             585
Cys Arg Asp Lys Ala Thr Thr Ser Gly Ser Asn Ser Ile Ser Val Arg
                 600
                                            605
Ala Phe Leu Asp Glu Asp Asp Met Ser Leu Glu Glu Ile Lys Asn Arg
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                                         620
Gln Asn Ala Ala Arg Asn Asn Ser Pro Pro Thr Val Gly Ala Phe Gly
                                     635
His Thr Arg Cys Ser Ala Phe Pro Leu Glu Glu Ala Asp Leu Ile
              645
                                 650
Glu Ala Ala Glu Pro Gly Gly Pro His Ser Ser Arg Asm Gly Leu Cys
          660
                             665
                                               670
His Pro Leu Asn His Ser Arg Thr Leu Ala Gly Lys Arg Pro Lys Ala
                          680
Pro Arg Gly Glu Glu Ala His Leu Pro Pro Val Ser Asp Leu Thr Val
                      695
                                         700
Glu Phe Asp Lys Leu Asn Leu Gln Asn Ile Gly Arg Ser Val Ser Lys
                  710
                                   715
Thr Pro Asp Glu Ser Thr Lys Thr Lys Asp Gln Ile Leu Thr Ser Arg
                                  730
Ile Asn Ala Val Glu Arg Asp Leu Leu Glu Pro Ser Pro Ala Asp Gln
           740
                              745
Leu Gly Asn Gly His Arg Arg Thr Glu Ser Glu Met Ser Ala Arg Ile
                          760
                                             765
Ala Lys Met Ser Leu Ser Pro Ser Ser Pro Arg His Glu Asp Gln Leu
                      775
                                         780
Glu Val Thr Arg Glu Pro Ala Arg Arg Leu Phe Leu Phe Gly Glu Glu
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Pro Ser Lys Leu Asp Gln Asp Val Leu Ala Ala Leu Glu Cys Ala Asp 805 810 Val Asp Pro His Gln Phe Pro Ala Val His Arg Trp Lys Ser Ala Val 825 820 Leu Cys Tyr Ser Pro Ser Asp Arg Gln Ser Trp Pro Ser Pro Ala Val 845 840 Lys Gly Arg Phe Lys Ser Gln Leu Pro Asp Leu Ser Gly Pro His Ser 855 860 Tyr Ser Pro Gly Arg Asn Ser Val Ala Gly Ser Asn Pro Ala Lys Pro 875 865 870 Gly Leu Gly Ser Pro Gly Arg Tyr Ser Pro Val His Gly Ser Gln Leu 885 890 Arg Arg Met Ala Arg Leu Ala Glu Leu Ala Ala Leu 900 905

<210> 2240 <211> 30 <212> PRT <213> Homo sapiens

<210> 2241 <211> 371 <212> PRT <213> Homo sapiens

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Gly Ile Phe Ser Phe Ala Arg Tyr Gly Ser Asp Phe Tyr Ser Met His 215 Tyr Lys Gly Lys Val Lys Lys Leu Lys Lys Thr Ser Ser Ser Asp Tyr 230 235 Ser Ile Phe Asp Asn Tyr Tyr Ile Pro Glu Ile Thr Ser Val Leu Leu 245 250 Leu Arg Ser Cys Lys Thr Leu Thr His Glu Ile Gly His Ile Phe Gly 260 265 270 Leu Arg His Cys Gln Trp Leu Ala Cys Leu Met Gln Gly Ser Asn His 280 285 Leu Glu Glu Ala Asp Arg Pro Leu Asn Leu Cys Pro Île Cys Leu 295 300 His Lys Leu Gln Cys Ala Val Gly Phe Ser Ile Val Glu Arg Tyr Lys 310 315 Ala Leu Val Arg Trp Ile Asp Asp Glu Ser Ser Asp Thr Pro Gly Ala 325 330 Thr Pro Glu His Ser His Glu Asp Asn Gly Asn Leu Pro Lys Pro Val 340 345 350 Glu Ala Phe Lys Glu Trp Lys Glu Trp Ile Ile Lys Cys Leu Ala Val 355 360 Leu Gln Lys 370 371

<210> 2242 <211> 549 <212> PRT <213> Homo sapiens

## <400> 2242

Ser Ala Pro Thr Ala Pro Ala Arg Pro Cys Arg Ala Glu Arg Gly Ser 1 5 10 Gly Gly Met Leu Ala Leu Leu Ala Ala Ser Val Ala Leu Ala Val 20 25 Ala Ala Gly Ala Gln Asp Ser Pro Ala Pro Gly Ser Arg Phe Val Cys 40 Thr Ala Leu Pro Pro Glu Ala Val His Ala Gly Cys Pro Leu Pro Ala 55 60 Met Pro Met Gln Gly Gly Ala Gln Ser Pro Glu Glu Glu Leu Arg Ala 70 75 Ala Val Leu Gln Leu Arg Glu Thr Val Val Gln Gln Lys Glu Thr Leu 85 90 Ala Ser Ala Arg Ala Ile Arg Glu Leu Thr Gly Lys Leu Ala Arg Cys 105 Glu Gly Leu Ala Gly Gly Lys Ala Arg Gly Ala Gly Ala Thr Gly Lys 120 115 125 Asp Thr Met Gly Asp Leu Pro Arg Asp Pro Gly His Val Val Glu Gln 135 140 Leu Ser Arg Ser Leu Gln Thr Leu Lys Asp Arg Leu Glu Ser Leu Glu 150 155 Pro Leu Pro Ala Met Pro Met Gln Gly Gly Ala Gln Ser Pro Glu Glu 165 170 175 Glu Leu Arg Ala Ala Val Leu Gln Leu Arg Glu Thr Val Val Gln Gln 180 185 Lys Glu Thr Leu Ala Ser Ala Arg Ala Ile Arg Glu Leu Thr Gly Lys 200 205 Leu Ala Arg Cys Glu Gly Leu Ala Gly Gly Lys Ala Arg Gly Ala Gly 215 220 Ala Thr Gly Lys Asp Thr Met Gly Asp Leu Pro Arg Asp Pro Gly His 230 235 Val Val Glu Gln Leu Ser Arg Ser Leu Gln Thr Leu Lys Asp Arg Leu

Glu Ser Leu Glu His Gln Leu Arg Ala Asn Val Ser Asn Ala Gly Leu Pro Gly Asp Phe Arg Glu Val Leu Gln Gln Arg Leu Gly Glu Leu Glu Arg Gln Leu Leu Arg Lys Gly Ala Glu Leu Glu Asp Glu Lys Ser Leu Leu His Asn Glu Thr Ser Ala His Arg Gln Lys Thr Glu Ser Thr Leu Asn Ala Leu Leu Gln Arg Val Thr Glu Leu Glu Arg Gly Asn Ser Ala Phe Lys Ser Pro Asn Ala Phe Lys Val Ser Leu Pro Leu Arg Thr Asn . 340 Tyr Leu Tyr Gly Lys Ile Lys Lys Thr Leu Pro Glu Leu Tyr Ala Phe Thr Ile Cys Leu Trp Leu Arg Ser Ser Ala Ser Pro Gly Met Gly Thr Pro Phe Ser Tyr Ala Val Pro Gly Gln Ala Asn Glu Ile Val Leu Ile Glu Trp Gly Asn Asn Pro Ile Glu Leu Leu Ile Asn Asp Lys Val Ala Gln Leu Pro Leu Phe Val Ser Asp Gly Lys Trp His His Ile Cys Val Thr Trp Thr Thr Arg Asp Gly Met Trp Glu Ala Phe Gln Asp Gly Lys Lys Leu Gly Thr Gly Glu Asn Leu Ala Pro Trp His Pro Ile Lys Pro Gly Gly Val Leu Ile Leu Gly Gln Glu Gln Asp Thr Val Gly Gly Arg Phe Asp Ala Thr Gln Ala Phe Val Gly Glu Leu Ser Gln Phe Asn Ile Trp Asp Arg Val Leu Arg Ala Gln Glu Ile Val Asn Ile Ala Asn Cys Ser Thr Asn Met Pro Gly Asn Ile Ile Pro Trp Val Asp Asn Asn Val Asp Val Phe Gly Gly Ala Ser Lys Trp Pro Val Glu Thr Cys Glu Glu Arg Leu Leu Asp Leu 

<210> 2243 <211> 378 <212> PRT <213> Homo sapiens

<213> Homo sapiens

<400> 2243 Leu Thr Ala Gly Thr Ala Met Asn Tyr Pro Leu Thr Leu Glu Met Asp Leu Glu Asn Leu Glu Asp Leu Phe Trp Glu Leu Asp Arg Leu Asp Asn Tyr Asn Asp Thr Ser Leu Val Glu Asn His Leu Cys Pro Ala Thr Glu Gly Pro Leu Met Ala Ser Phe Lys Ala Val Phe Val Pro Val Ala Tyr Ser Leu Ile Phe Leu Leu Gly Val Ile Gly Asn Val Leu Val Leu Val Ile Leu Glu Arg His Arg Gln Thr Arg Ser Ser Thr Glu Thr Phe Leu Phe His Leu Ala Val Ala Asp Leu Leu Val Phe Ile Leu Pro Phe Ala Val Ala Glu Gly Ser Val Gly Trp Val Leu Gly Thr Phe Leu Cys 

Lys Thr Val Ile Ala Leu His Lys Val Asn Phe Tyr Cys Ser Ser Leu 135 140 Leu Leu Ala Cys Ile Ala Val Asp Arg Tyr Leu Ala Ile Val His Ala 150 155 Val His Ala Tyr Arg His Arg Arg Leu Leu Ser Ile His Ile Thr Cys 165 170 175 Gly Thr Ile Trp Leu Val Gly Phe Leu Leu Ala Leu Pro Glu Ile Leu 185 180 Phe Ala Lys Val Ser Gln Gly His His Asn Asn Ser Leu Pro Arg Cys 195 200 205 Thr Phe Ser Gln Glu Asn Gln Ala Glu Thr His Ala Trp Phe Thr Ser 215 220 Arg Phe Leu Tyr His Val Ala Gly Phe Leu Leu Pro Met Leu Val Met 230 235 225 Gly Trp Cys Tyr Val Gly Val Val His Arg Leu Arg Gln Ala Gln Arg 250 245 Arg Pro Gln Arg Gln Lys Ala Val Arg Val Ala Ile Leu Val Thr Ser 265 260 Ile Phe Phe Leu Cys Trp Ser Pro Tyr His Ile Val Ile Phe Leu Asp 275 280 285 Thr Leu Ala Arg Leu Lys Ala Yal Asp Asn Thr Cys Lys Leu Asn Gly 290 295 300 Ser Leu Pro Val Ala Ile Thr Met Cys Glu Phe Leu Gly Leu Ala His 310 315 Cys Cys Leu/Asn Pro Met Leu Tyr Thr Phe Ala Gly Val Lys Phe Arg 325 330 Ser Asp Leu Ser Arg Leu Leu Thr Lys Leu Gly Cys Thr Gly Pro Ala 340 345 350 Ser Leu Cys Gln Leu Phe Pro Ser Trp Arg Arg Ser Ser Leu Ser Glu 355 360 Ser Glu Asn Ala Thr Ser Leu Thr Thr Phe 375

<210> 2244 <211> 127 <212> PRT <213> Homo sapiens

<400> 2244 Phe Val Thr Arg Ala Gly Arg Trp Gly Ala Gly Ala Arg Val Arg Gly 10 Gly Ala Gly Gly Met Ala Ser Gly Ala Ala Arg Trp Leu Val Leu Ala Pro Val Arg Ser Gly Ala Leu Arg Ser Gly Pro Ser Leu Arg Lys Asp 35 40 Gly Asp Val Ser Ala Ala Trp Ser Gly Ser Gly Arg Ser Leu Val Pro 55 60 Ser Arg Ser Val Ile Val Thr Arg Ser Gly Ala Ile Leu Pro Lys Pro Val Lys Met Ser Phe Gly Leu Leu Arg Val Phe Ser Ile Val Ile Pro 85 90 95 85 Phe Leu Tyr Val Gly Thr Leu Ile Ser Lys Asn Phe Ala Ala Leu Leu 110 100 105 Glu Glu His Asp Ile Phe Val Pro Glu Asp Asp Asp Asp Asp 120 125 127

<210> 2245 <211> 53 <212> PRT

PCT/US01/03800 WO 01/57188

## <213> Homo sapiens

<400> 2245 Ala Pro Tyr Ala His Ser Gln Val His Cys Leu Asp Lys Val Cys Gly 10 Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln Phe Tyr Arg Leu 20 25 Trp Leu Ser Leu Phe Leu His Ala Gly Lys Glu Ala Pro His Cys Pro 40 35 Arg Thr Arg Pro Leu 50 53

<210> 2246 <211> 124 <212> PRT

<213> Homo sapiens

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<210> 2247 <211> 427 <212> PRT

<213> Homo sapiens

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Val Glu Leu Ser Thr Val Asm Val Arg Thr Thr Lys Pro Pro Lys Arg 135 Arg Pro Leu Lys Ser Leu Glu Ala Thr Leu Gly Arg Leu Arg Arg Ala 150 155 Thr Glu Tyr Ala Pro Lys Lys Arg Ile Glu Pro Leu Ser Pro Glu Leu 165 170 Val Ala Ala Ser Ala Val Ala Asp Ser Leu Pro Phe Asp Lys Gln 185 Thr Thr Lys Ser Glu Leu Leu Ser Gln Leu Gln Gln His Glu Glu Glu 195 200 205 Ser Arg Ala Gln Arg Asp Ala Lys Arg Pro Lys Ile Ser Phe Ser Asn 215 Ile Ile Ser Asp Met Lys Val Ala Arg Ser Ala Thr Ala Arg Val Arg 230 235 Ser Arg Pro Glu Leu Arg Ile Gln Phe Asp Glu Gly Tyr Asp Asn Tyr 245 250 Pro Gly Gln Glu Lys Thr Asp Asp Leu Lys Lys Arg Lys Asn Ile Phe 265 Thr Gly Lys Arg Leu Asn Ile Phe Asp Met Met Ala Val Thr Lys Glu 280 285 275 Ala Pro Glu Thr Asp Thr Ser Pro Ser Leu Trp Asp Val Glu Phe Ala 295 300 Lys Gln Leu Ala Thr Val Asn Glu Gln Pro Leu Gln Asn Gly Phe Glu 310 315 Glu Leu Ile Gln Trp Thr Lys Glu Gly Lys Leu Trp Glu Phe Pro Ile 325 330 Asn Asn Glu Ala Gly Phe Asp Asp Gly Ser Glu Phe His Glu His 340 345 350 Ile Phe Leu Glu Lys His Leu Glu Ser Phe Pro Lys Gln Gly Pro Ile 360 Arg His Phe Met Glu Leu Val Thr Cys Gly Leu Ser Lys Asn Pro Tyr 375 380 Leu Ser Val Lys Gln Lys Val Glu His Ile Glu Trp Phe Arg Asn Tyr 390 **395** . Phe Asn Glu Lys Lys Asp Ile Leu Lys Glu Ser Asn Ile Gln Phe Lys 405 410 Leu Arg Pro Trp Lys Phe Leu Phe Arg Asn Asn 425

<210> 2248 <211> 137 <212> PRT <213> Homo sapiens

<400> 2248

Ser Cys Gln Thr Thr Gln Pro Pro Ala Gln Ser Cys Ser Thr Gly Thr 10 Met Arg Ile Met Leu Leu Phe Thr Ala Ile Leu Ala Phe Ser Leu Ala 20 25 Gln Ser Phe Gly Ala Val Cys Lys Glu Pro Gln Glu Glu Val Val Pro 35 40 Gly Gly Gly Arg Ser Lys Arg Asp Pro Asp Leu Tyr Gln Leu Leu Gln 50 55 Arg Leu Phe Lys Ser His Ser Ser Leu Glu Gly Leu Leu Lys Ala Leu 70 75 Ser Gln Ala Ser Thr Asp Pro Lys Glu Ser Thr Ser Pro Glu Lys Arg 85 90 Asp Met His Asp Phe Phe Val Gly Leu Met Gly Lys Arg Ser Val Gln 105 110 Pro Asp Ser Pro Thr Asp Val Asn Gln Glu Asn Val Pro Ser Phe Gly

Ile Leu Lys Tyr Pro Pro Arg Ala Glu 130 135 137

> <210> 2249 <211> 174 <212> PRT <213> Homo sapiens

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<210> 2250 <211> 388 <212> PRT <213> Homo sapiens

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Asp Ala Asp Glu Leu Arg Ala Ala Met Lys Gly Leu Gly Thr Asp Glu 165 170 Asp Thr Leu Ile Glu Ile Leu Ala Ser Arg Thr Asn Lys Glu Ile Arg 185 Asp Ile Asn Arg Val Tyr Arg Glu Glu Leu Lys Arg Asp Leu Ala Lys 200 195 205 Asp Ile Thr Ser Asp Thr Ser Gly Asp Phe Arg Asn Ala Leu Leu Ser 215 220 Leu Ala Lys Gly Asp Arg Ser Glu Asp Phe Gly Val Asn Glu Asp Leu 230 235 Ala Asp Ser Asp Ala Arg Ala Leu Tyr Glu Ala Gly Glu Arg Arg Lys 245 250 Gly Thr Asp Val Asn Val Phe Asn Thr Ile Leu Thr Thr Arg Ser Tyr 260 265 Pro Gln Leu Arg Arg Val Phe Gln Lys Tyr Thr Lys Tyr Ser Lys His 280 285 Asp Met Asn Lys Val Leu Asp Leu Glu Leu Lys Gly Asp Ile Glu Lys 295 300 Cys Leu Thr Ala Ile Val Lys Cys Ala Thr Ser Lys Pro Ala Phe Phe 310 315 Ala Glu Lys Leu His Gln Ala Met Lys Gly Val Gly Thr Arg His Lys 325 330 Ala Leu Ile Arg Ile Met Val Ser Arg Ser Glu Ile Asp Met Asn Asp 345 340 Ile Lys Ala Phe Tyr Gln Lys Met Tyr Gly Ile Ser Leu Cys Gln Ala 360 Ile Leu Asp Glu Thr Lys Gly Asp Tyr Glu Lys Ile Leu Val Ala Leu 375 Cys Gly Gly Asn

<210> 2251 <211> 268 <212> PRT <213> Homo sapiens

165

180

<400> 2251

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Asp Thr Ala Glu Pro Thr Lys Ala Gly Arg Gly Ala Ser Gln Pro Pro

185

170

Thr Pro Thr Pro Ala Ser Asp Ala Phe Gln Arg Lys Leu Glu Gly Cys
195

Arg Phe Leu His Gly Tyr His Arg Phe Met His Ser Val Gly Arg Val
210

Phe Ser Lys Trp Gly Glu Ser Pro Asn Arg Ser Arg Arg His Ser Pro
225

His Gln Ala Leu Arg Lys Gly Val Arg Arg Thr Arg Pro Ser Arg Lys
255

Gly Lys Arg Leu Met Thr Arg Gly Gln Leu Pro Arg
266

<210> 2252 <211> 275 <212> PRT <213> Homo sapiens

<400> 2252 Thr Ala Ala Arg Arg Arg Gln Lys Gly Thr Ala Ala Arg Arg Leu Gln 10 Lys Gly Thr Ala Ala Arg Arg Gln Lys Gly Thr Ala Ala Arg Arg 25 Arg Gln Lys Gly Thr Ala Ala Arg Arg Pro Gln Lys Gly Thr Ala Ala 45 40 35 Arg Arg Arg Gln Lys Gly Thr Ala Ala Arg Arg Arg Gln Lys Gly Thr 60 55 50 Ala Ala Arg Arg Gln Lys Gly Thr Ala Ala Arg Arg Pro Gln Lys 70. Gly Thr Ala Ala Arg Arg Arg Gln Lys Gly Thr Ala Ala Arg Arg Arg 85 90 95 Gln Lys Gly Thr Ala Ala Arg Arg Gln Lys Gly Leu Ala Ile Ala 100 105 110 Ser Arg Gly Cys Pro Cys Ala Ser Arg Ala Gly Gly Val Arg Gly Ala 115 120 Gly Ser Arg Leu Arg Ala Met Ala Pro Lys Val Phe Arg Gln Tyr Trp 140 135 Asp Ile Pro Asp Gly Thr Asp Cys His Arg Lys Ala Tyr Ser Thr Thr 150 155 Ser Ile Ala Ser Val Ala Gly Leu Thr Ala Ala Ala Tyr Arg Val Thr 170 175 165 Leu Asn Pro Pro Gly Thr Phe Leu Glu Gly Val Ala Lys Val Gly Gln 180 185 190 Tyr Thr Phe Thr Ala Ala Ala Val Gly Ala Val Phe Gly Leu Thr Thr 200 205 195 Cys Ile Ser Ala His Val Arg Glu Lys Pro Asp Asp Pro Leu Asn Tyr 220 215 Phe Leu Gly Gly Cys Ala Gly Gly Leu Thr Leu Gly Ala Arg Thr His 235 230 Asn Tyr Gly Ile Gly Ala Ala Ala Cys Val Tyr Phe Gly Ile Ala Ala 250 245 Ser Leu Val Lys Met Gly Arg Leu Glu Gly Trp Glu Val Phe Ala Lys 260 265 Pro Lys Val

<210> 2253 <211> 194 <212> PRT <213> Homo sapiens

275

<400> 2253 Pro Trp Leu Pro Trp Ser Asp Gly Arg Ala Ala Arg Ser Ser Arg Lys 10 Cys Pro Arg Ser Arg Phe Pro Val Gln Val Gly Lys Met Ala Val Ser 25 Thr Val Phe Ser Thr Ser Ser Leu Met Leu Ala Leu Ser Arg His Ser 40 Leu Leu Ser Pro Leu Leu Ser Val Thr Ser Phe Arg Arg Phe Tyr Arg Gly Asp Ser Pro Thr Asp Ser Gln Lys Asp Met Ile Glu Ile Pro Leu 70 75 Pro Pro Trp Gln Glu Arg Thr Asp Glu Ser Ile Glu Thr Lys Arg Ala 85 90 Arg Leu Leu Tyr Glu Ser Arg Lys Arg Gly Met Leu Glu Asn Cys Ile 105 100 Leu Leu Ser Leu Phe Ala Lys Glu His Leu Gln His Met Thr Glu Lys 115 120 125 Gln Leu Asn Leu Tyr Asp Arg Leu Ile Asn Glu Pro Ser Asn Asp Trp 140 135 Asp Ile Tyr Tyr Trp Ala Thr Glu Ala Lys Pro Ala Pro Glu Ile Phe 150 155 Glu Asn Glu Val Met Ala Leu Leu Arg Asp Phe Ala Lys Asn Lys Asn 165 170 175 Lys Glu Gln Arg Leu Arg Ala Pro Asp Leu Glu Tyr Leu Phe Glu Lys 180 185 Pro Arg

<210> 2254 <211> 260 <212> PRT

. <213> Homo sapiens

<400> 2254 Gly Ala Gly Arg Ala Leu Gly His Leu Glu Thr Gly Ala Gly Asp Val 10 Ala Ala Ala Leu Pro Ala Arg Lys Phe Pro Arg Ser Leu Leu Gly Ala 20 25 Gly Ala Arg Leu Thr Gly Trp Thr Met Asn Val Phe Arg Ile Leu Gly 40 Asp Leu Ser His Leu Leu Ala Met Ile Leu Leu Gly Lys Ile Trp 55 60 Arg Ser Lys Cys Cys Lys Gly Ile Ser Gly Lys Ser Gln Ile Leu Phe 70 Ala Leu Val Phe Thr Thr Arg Tyr Leu Asp Leu Phe Thr Asn Phe Ile Ser Ile Tyr Asn Thr Val Met Lys Val Val Phe Leu Leu Cys Ala Tyr 100 105 Val Thr Val Tyr Met Ile Tyr Gly Lys Phe Arg Lys Thr Phe Asp Ser 120 125 Glu Asn Asp Thr Phe Arg Leu Glu Phe Leu Leu Val Pro Val Ile Gly 135 Leu Ser Phe Leu Glu Asn Tyr Ser Phe Thr Leu Leu Glu Ile Leu Trp 150 155 Thr Phe Ser Ile Tyr Leu Glu Ser Val Ala Ile Leu Pro Gln Leu Phe 165 170 Met Ile Ser Lys Thr Gly Glu Ala Glu Thr Ile Thr Thr His Tyr Leu 185 Phe Phe Leu Gly Leu Tyr Arg Ala Leu Tyr Leu Ala Asn Trp Ile Arg 200

Arg Tyr Gln Thr Glu Asn Phe Tyr Asp Gln Ile Ala Val Val Ser Gly
210 215 220

Val Val Gln Thr Ile Phe Tyr Cys Asp Phe Phe Tyr Leu Tyr Val Thr
225 230 230

Lys Gly Arg Ser Trp Asp Asp Ser Asn Ala Asp Thr Gly Leu Arg Ser
245 255

Tyr Ser Ser Ile
260

<210> 2255 <211> 172 <212> PRT <213> Homo sapiens

<400> 2255 Leu Ser Asn Lys Asp Val Leu Ser Pro Gln Leu Lys Asp Glu Asn Ser 10 1 5 Lys Leu Arg Arg Lys Leu Asn Glu Val Gln Ser Phe Ser Glu Ala Gln 30 25 20 Thr Glu Met Val Arg Thr Leu Glu Arg Lys Leu Glu Ala Lys Met Ile 45 40 35 Lys Glu Glu Ser Asp Tyr His Asp Leu Glu Ser Val Val Gln Gln Val 55 60 Glu Gln Asn Leu Glu Leu Met Thr Lys Arg Ala Val Lys Ala Glu Asn 75 70 His Val Val Lys Leu Lys Gln Glu Ile Ser Leu Leu Gln Ala Gln Val 90 85 Ser Asn Phe Gln Arg Glu Asn Glu Ala Leu Arg Cys Gly Gln Gly Ala 105 110 100 Ser Leu Thr Val Val Lys Gln Asn Ala Asp Val Ala Leu Gln Asn Leu 125 120 Arg Val Val Met Asn Ser Ala Gln Ala Ser Ile Glu Gln Leu Val Ser 140 135 Gly Ala Glu Thr Leu Asn Leu Val Ala Glu Ile Leu Lys Ser Ile Asp 145 150 155 Arg Ile Ser Glu Val Lys Asp Glu Glu Glu Asp Ser 165 170 172

<210> 2256 <211> 486 <212> PRT <213> Homo sapiens

<400> 2256 Asp Ser Pro Arg Asn Arg Phe Glu Ile Leu Gly Arg Pro Thr Arg Thr 10 Pro Thr Arg Pro Gly Pro Arg Pro Ala Met Glu Asp Leu Asp Ala Leu 25 Leu Ser Asp Leu Glu Thr Thr Thr Ser His Met Pro Arg Ser Gly Ala 40 35 Pro Lys Glu Arg Pro Ala Glu Pro Leu Thr Pro Pro Pro Ser Tyr Gly 60 55 50 His Gln Pro Gln Thr Gly Ser Gly Glu Ser Ser Gly Ala Ser Gly Asp 75 70 Lys Asp His Leu Tyr Ser Thr Val Cys Lys Pro Arg Ser Pro Lys Pro 90 95 Ala Ala Pro Ala Ala Pro Pro Phe Ser Ser Ser Gly Val Leu Gly 105 110

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Thr Gly Leu Cys Glu Leu Asp Arg Leu Leu Gln Glu Leu Asn Ala Thr
      115
            120 125
Gin Phe Asn Ile Thr Asp Glu Ile Met Ser Gln Phe Pro Ser Ser Lys
             135
                           140
Val Ala Ser Gly Glu Gln Lys Glu Asp Gln Ser Glu Asp Lys Lys Arg
       150
                             155
Pro Ser Leu Pro Ser Ser Pro Ser Pro Gly Leu Pro Lys Ala Ser Ala
       165 170 175
Thr Ser Ala Thr Leu Glu Leu Asp Arg Leu Met Ala Ser Leu Ser Asp
                        185
Phe Arg Val Gln Asn His Leu Pro Ala Ser Gly Pro Thr Gln Pro Pro
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                     200
                             205
Val Val Ser Ser Thr Asn Glu Gly Ser Pro Ser Pro Pro Glu Pro Thr
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             215
Gly Lys Gly Ser Leu Asp Thr Met Leu Gly Leu Leu Gln Ser Asp. Leu
               230
                        235
Ser Arg Arg Gly Val Pro Thr Gln Ala Lys Gly Leu Cys Gly Ser Cys
           245 250
Asn Lys Pro Ile Ala Gly Gln Val Val Thr Ala Leu Gly Arg Ala Trp
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                        265
                                          270
His Pro Glu His Phe Val Cys Gly Gly Cys Ser Thr Ala Leu Gly Gly
                     280
Ser Ser Phe Phe Glu Lys Asp Gly Ala Pro Phe Cys Pro Glu Cys Tyr
                  295
                                 300
Phe Glu Arg Phe Ser Pro Arg Cys Gly Phe Cys Asn Gln Pro Ile Arg
         310
                        315 320
His Lys Met Val Thr Ala Leu Gly Thr His Trp His Pro Glu His Phe
                     330
Cys Cys Val Ser Cys Gly Glu Pro Phe Gly Asp Glu Gly Phe His Glu
340 345 350
                345
Arg Glu Gly Arg Pro Tyr Cys Arg Arg Asp Phe Leu Gln Leu Phe Ala
                              365
355
                     360
Pro Arg Cys Gln Gly Cys Gln Gly Pro Ile Leu Asp Asn Tyr Ile Ser
                 375
                           380
Ala Leu Ser Ala Leu Trp His Pro Asp Cys Phe Val Cys Arg Glu Cys
               390
                               395
Phe Ala Pro Phe Ser Gly Gly Ser Phe Phe Glu His Glu Gly Arg Pro
          405
                           410
Leu Cys Glu Asn His Phe His Ala Arg Arg Gly Ser Leu Cys Ala Thr
        420 425
                                430
Cys Gly Leu Pro Val Thr Gly Arg Cys Val Ser Ala Leu Gly Arg Arg
      435
                             445
                      440
Phe His Pro Asp His Phe Thr Cys Thr Phe Cys Leu Arg Pro Leu Thr
                  455
Lys Gly Ser Phe Gln Glu Arg Ala Gly Lys Pro Tyr Cys Gln Pro Cys
             470
Phe Leu Lys Leu Phe Gly
            485 486
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<210> 2257
<211> 40
<212> PRT
<213> Homo sapiens
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<400> 2258 Lys Leu Ser Cys Pro Cys Ser His Gly Thr Arg Val Thr Ala Val Arg 10 Gly Pro Arg Leu Lys Ala Gly Val Gln Trp His Asp Leu Gly Ser Leu 25 Gln Pro Pro Pro Ser Gly Leu Lys Gln Ser Ser His Leu Ser Leu Ser 35 40 Ser Ser Trp Asp Phe Arg His Ala Pro Thr His Pro Glu Thr Tyr Thr 60 55 Cys Pro Lys Met Ile Glu Met Glu Gln Ala Glu Ala Gln Leu Ala Glu 70 Leu Asp Leu Leu Ala Ser Met Phe Pro Gly Glu Asn Glu Leu Ile Val 90 85 Asn Asp Gln Leu Ala Val Ala Glu Leu Lys Asp Cys Ile Glu Lys Lys 100 105 110 Thr Met Glu Gly Arg Ser Ser Lys Val Tyr Phe Thr Ile Asn Met Asn 115 120 125 Leu Asp Val Ser Asp Glu Lys Met Ala Met Phe Ser Leu Ala Cys Ile 140 130 135 Leu Pro Phe Lys Tyr Pro Ala Val Leu Pro Glu Ile Thr Val Arg Ser 145 150 155 Val Leu Leu Ser Arg Ser Gln Gln Thr Gln Leu Asn Thr Asp Leu Thr 165 170 175 Ala Phe Leu Gln Lys His Cys His Gly Asp Val Cys Ile Leu Asn Ala 180 185 190 Thr Glu Trp Val Arg Glu His Ala Ser Gly Tyr Val Ser Arg Asp Thr 195 200 205 Ser Ser Ser Pro Thr Thr Gly Ser Thr Val Gln Ser Val Asp Leu Ile 220 215 Phe Thr Arg Leu Trp Ile Tyr Ser His His Ile Tyr Asn Lys Cys Lys 235 230 Arg Lys Asn Ile Leu Glu Trp Ala Lys Glu Leu Ser Leu Ser Gly Phe 245 250 255 Ser Met Pro Gly Lys Pro Gly Val Val Cys Val Glu Gly Pro Gln Ser 260 265 270 Ala Cys Glu Glu Phe Trp Ala Arg Leu Arg Lys Leu Asn Trp Lys Arg 275 280 285 Ile Leu Ile Arg His Arg Glu Asp Ile Pro Phe Asp Gly Thr Asn Asp 300 295 Glu Thr Glu Arg Gln Arg Lys Phe Ser Ile Phe Glu Glu Lys Val Phe 315 310 Ser Val Asn Gly Ala Arg Gly Asn His Met Asp Phe Gly Gln Leu Tyr 330 325 Gln Phe Leu Asn Thr Lys Gly Cys Gly Asp Val Phe Gln Met Phe Leu 345 Trp Val 354

<210> 2259 <211> 48 <212> PRT

<210> 2258 <211> 354 <212> PRT

<213> Homo sapiens

<213> Homo sapiens

<210> 2260 <211> 1554 <212> PRT <213> Homo sapiens

<400> 2260 Gly Ala Leu Thr Trp Ser His Pro Leu Leu Ala Val Cys Pro Gln Gly 10 Val Trp Leu Gly Ser Thr Pro Ser Gly Ser Pro Ala Leu Leu Pro Pro 25 Ser His Arg Val Asn Ala Glu Pro Gly Cys Val Val Thr Asn Ala Cys 35 40 Ala Ser Gly Pro Cys Pro Pro His Ala Asn Cys Arg Asp Leu Trp Gln 55 Thr Phe Ser Cys Thr Cys Gln Pro Gly Tyr Tyr Gly Pro Gly Cys Val 65 70 75 80 Asp Ala Cys Leu Leu Asn Pro Cys Gln Asn Gln Gly Ser Cys Arg His Leu Pro Gly Ala Pro His Gly Tyr Thr Cys Asp Cys Val Gly Gly Tyr 105 Phe Gly His His Cys Glu His Arg Met Asp Gln Gln Cys Pro Arg Gly 120 125 Trp Trp Gly Ser Pro Thr Cys Gly Pro Cys Asn Cys Asp Val His Lys 135 140 Gly Phe Asp Pro Asn Cys Asn Lys Thr Asn Gly Gln Cys His Cys Lys 145 150 155 160 Glu Phe His Tyr Arg Pro Arg Gly Ser Asp Ser Cys Leu Pro Cys Asp 165 170 175 Cys Tyr Pro Val Gly Ser Thr Ser Arg Ser Cys Ala Pro His Ser Gly 180 185 190 Gln Cys Pro Cys Arg Pro Gly Ala Leu Gly Arg Gln Cys Asn Ser Cys Asp Ser Pro Phe Ala Glu Val Thr Ala Ser Gly Cys Arg Val Leu Tyr 215 220 Asp Ala Cys Pro Lys Ser Leu Arg Ser Gly Val Trp Trp Pro Gln Thr 225 230 235 240 230 Lys Phe Gly Val Leu Ala Thr Val Pro Cys Pro Arg Gly Ala Leu Gly 245 250 250 Leu Arg Gly Ala Gly Ala Ala Val Arg Leu Cys Asp Glu Ala Gln Gly 260 . 265 Trp Leu Glu Pro Asp Leu Phe Asn Cys Thr Ser Pro Ala Phe Arg Glu 275 280 285 Leu Ser Leu Leu Leu Asp Gly Leu Glu Leu Asn Lys Thr Ala Leu Asp 295 300 Thr Met Glu Ala Lys Lys Leu Ala Gln Arg Leu Arg Glu Val Thr Gly 310 315 His Thr Asp His Tyr Phe Ser Gln Asp Val Arg Val Thr Ala Arg Leu 325 330 335 330 Leu Ala His Leu Leu Ala Phe Glu Ser His Gln Gln Gly Phe Gly Leu

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Thr Ala Thr Gln Asp Ala His Phe Asn Glu Asn Leu Leu Trp Ala Gly
                          360
Ser Ala Leu Leu Ala Pro Glu Thr Gly Asp Leu Trp Ala Ala Leu Gly
                                        380
                     375
Gln Arg Ala Pro Gly Gly Ser Pro Gly Ser Ala Gly Leu Val Arg His
                 390
                                  395
Leu Glu Glu Tyr Ala Ala Thr Leu Ala Arg Asn Met Glu Leu Thr Tyr
              405 410
Leu Asn Pro Met Gly Leu Val Thr Pro Asn Ile Met Leu Ser Ile Asp
                             425
           420
Arg Met Glu His Pro Ser Ser Pro Arg Gly Ala Arg Arg Tyr Pro Arg
       435
                         440
Tyr His Ser Asn Leu Phe Arg Gly Gln Asp Ala Trp Asp Pro His Thr
                                      460
           455
His Val Leu Leu Pro Ser Gln Ser Pro Arg Pro Ser Pro Ser Glu Val
         470
                                    475
Leu Pro Thr Ser Ser Ser Ile Glu Asn Ser Thr Thr Ser Ser Val Val
                                 490
Pro Pro Pro Ala Pro Pro Glu Pro Glu Pro Gly Ile Ser Ile Ile Ile
                                                510
                             505
          500
Leu Leu Val Tyr Arg Thr Leu Gly Gly Leu Leu Pro Ala Gln Phe Gln
                        520
                                            525
      515
Ala Glu Arg Arg Gly Ala Arg Leu Pro Gln Asn Pro Val Met Asn Ser
                               540
                   535
Pro Val Val Ser Val Ala Val Phe His Gly Arg Asn Phe Leu Arg Gly
                                    555
                 550
Ile Leu Glu Ser Pro Ile Ser Leu Glu Phe Arg Leu Leu Gln Thr Ala
                                 570
Asn Arg Ser Lys Ala Ile Cys Val Gln Trp Asp Pro Pro Gly Leu Ala
          580
                            585
                                               590
Glu Gln His Gly Val Trp Thr Ala Arg Asp Cys Glu Leu Val His Arg
                       600
      595
Asn Gly Ser His Ala Arg Cys Arg Cys Ser Arg Thr Gly Thr Phe Gly
                                        620
                     615
Val Leu Met Asp Ala Ser Pro Arg Glu Arg Leu Glu Gly Asp Leu Glu
                                     635
                  630
Leu Leu Ala Val Phe Thr His Val Val Val Ala Val Ser Val Ala Ala
                                 650
Leu Val Leu Thr Ala Ala Ile Leu Leu Ser Leu Arg Ser Leu Lys Ser
                                                670
          660
                             665
Asn Val Arg Gly Ile His Ala Asn Val Ala Ala Ala Leu Gly Val Ala
       675
                         680
Glu Leu Leu Phe Leu Leu Gly Ile His Arg Thr His Asn Gln Leu Val
                     .695
                                      700
Cys Thr Ala Val Val Ile Leu Leu His Tyr Phe Phe Leu Ser Thr Phe
                                     715
                  710
Ala Trp Leu Phe Val Gln Gly Leu His Leu Tyr Arg Met Gln Val Glu
                                  730
Pro Arg Asn Val Asp Arg Gly Ala Met Arg Phe Tyr His Ala Leu Gly
                             745
          740
Trp Gly Val Pro Ala Val Leu Leu Gly Leu Ala Val Gly Leu Asp Pro
       755
                          760
                                             765
Glu Gly Tyr Gly Asn Pro Asp Phe Cys Trp Ile Ser Val His Glu Pro
                      775
                                       780
Leu Ile Trp Ser Phe Ala Gly Pro Val Val Leu Val Ile Val Met Asn
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                                     795
Gly Thr Met Phe Leu Leu Ala Ala Arg Thr Ser Cys Ser Thr Gly Gln
                                  810
              805
Arg Glu Ala Lys Lys Thr Ser Ala Leu Thr Leu Arg Ser Ser Phe Leu
           820
                            825
Leu Leu Leu Val Ser Ala Ser Trp Leu Phe Gly Leu Leu Ala Val
                         840
                                            845
Asn His Ser Ile Leu Ala Phe His Tyr Leu His Ala Gly Leu Cys Gly
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Leu Gln Gly Leu Ala Val Leu Leu Leu Phe Cys Val Leu Asn Ala Asp 870 875 880 Ala Arg Ala Ala Trp Met Pro Ala Cys Leu Gly Arg Lys Ala Ala Pro 885 890 Glu Glu Ala Arg Pro Ala Pro Gly Leu Gly Pro Gly Ala Tyr Asn Asn . 900 905 Thr Ala Leu Phe Glu Glu Ser Gly Leu Ile Arg Ile Thr Leu Gly Ala 915 920 925 Ser Thr Val Ser Ser Val Ser Ser Ala Arg Ser Gly Arg Thr Gln Asp 935 940 Gln Asp Ser Gln Arg Gly Arg Ser Tyr Leu Arg Asp Asn Val Leu Val 950 955 Arg His Gly Ser Ala Ala Asp His Thr Asp His Ser Leu Gln Ala His 970 965 Ala Gly Pro Thr Asp Leu Asp Val Ala Met Phe His Arg Asp Ala Gly 985 Ala Asp Ser Asp Ser Asp Leu Ser Leu Glu Glu Glu Arg Ser 1000 995 1005 Leu Ser Ile Pro Ser Ser Glu Ser Glu Asp Asn Gly Arg Thr Arg Gly 1015 1020 Arg Phe Gln Arg Pro Leu Cys Arg Ala Ala Gln Ser Glu Arg Leu Leu 1030 1035 Thr His Pro Lys Asp Val Asp Gly Asn Asp Leu Leu Ser Tyr Trp Pro 1050 1055 1045 Ala Leu Gly Glu Cys Glu Ala Ala Pro Cys Ala Leu Gln Thr Trp Gly 1065 1070 1060 Ser Glu Arg Arg Leu Gly Leu Asp Thr Ser Lys Asp Ala Ala Asn Asn 1075 1080 1085 Asn Gln Pro Asp Pro Ala Leu Thr Ser Gly Asp Glu Thr Ser Leu Gly 1090 1095 1100 Arg Ala Gln Arg Gln Arg Lys Gly Ile Leu Lys Asn Arg Leu Gln Tyr 1105 1110 1115 1120 Pro Leu Val Pro Gln Thr Arg Gly Ala Pro Glu Leu Ser Trp Cys Arg 1125 1130 1135 Ala Ala Thr Leu Gly His Arg Ala Val Pro Ala Ala Ser Tyr Gly Arg 1145 1140 1150 Ile Tyr Ala Gly Gly Gly Thr Gly Ser Leu Ser Gln Pro Ala Ser Arg 1155 1160 1165 Tyr Ser Ser Arg Glu Gln Leu Asp Leu Leu Leu Arg Arg Gln Leu Ser 1175 1180 Arg Glu Arg Leu Glu Glu Ala Pro Ala Pro Val Leu Arg Pro Leu Ser 1190 1195 Arg Pro Gly Ser Gln Glu Cys Met Asp Ala Ala Pro Gly Arg Leu Glu 1205 1210 Pro Lys Asp Arg Gly Ser Thr Leu Pro Arg Arg Gln Pro Pro Arg Asp 1230 1220 1225 Tyr Pro Gly Ala Met Ala Gly Arg Phe Gly Ser Arg Asp Ala Leu Asp 1240 1245 1235 Leu Gly Ala Pro Arg Glu Trp Leu Ser Thr Leu Pro Pro Pro Arg Arg 1255 1260 Thr Arg Asp Leu Asp Pro Gln Pro Pro Pro Leu Pro Leu Ser Pro Gln 1270 1275 1280 1265 Arg Gln Leu Ser Arg Asp Pro Leu Leu Pro Ser Arg Pro Leu Asp Ser 1285 1290 1295 Leu Ser Arg Ser Ser Asn Ser Arg Glu Gln Leu Asp Gln Val Pro Ser 1305 1310 Arg His Pro Ser Arg Glu Ala Leu Gly Pro Leu Pro Gln Leu Leu Arg 1320 1315 1325 Ala Arg Glu Asp Ser Val Ser Gly Pro Ser His Gly Pro Ser Thr Glu 1330 1335 1340 Gln Leu Asp Ile Leu Ser Ser Ile Leu Ala Ser Phe Asn Ser Ser Ala 1350 1355 Leu Ser Ser Val Gln Ser Ser Ser Thr Pro Leu Gly Pro His Thr Thr 1370

Ala Thr Pro Ser Ala Thr Ala Ser Val Leu Gly Pro Ser Thr Pro Arg 1380 1385 Ser Ala Thr Ser His Ser Ile Ser Glu Leu Ser Pro Asp Ser Glu Pro 1400 1405 1395 Arg Asp Thr Gln Ala Leu Leu Ser Ala Thr Gln Ala Met Asp Leu Arg 1415 1420 Arg Arg Asp Tyr His Met Glu Arg Pro Leu Leu Asn Gln Glu His Leu 1430 1435 Glu Glu Leu Gly Arg Trp Gly Ser Ala Pro Arg Thr His Gln Trp Arg 1445 1450 1455 Thr Trp Leu Gln Cys Ser Arg Ala Arg Ala Tyr Ala Leu Leu Gln 1460 1465 1470 His Leu Pro Val Leu Val Trp Leu Pro Arg Tyr Pro Val Arg Asp Trp 1475 1480 1485 Leu Leu Gly Asp Leu Leu Ser Gly Leu Ser Val Ala Ile Met Gln Leu 1490 1495 1500 Pro Gln Gly Leu Ala Tyr Ala Leu Leu Ala Gly Leu Pro Pro Val Phe 1505 1510 1515 1520 Gly Leu Tyr Ser Ser Phe Tyr Pro Val Phe Ile Tyr Phe Leu Phe Gly 1525 1530 1535 Thr Ser Arg His Ile Ser Val Glu Ser Leu Cys Val Pro Gly Pro Val 1545 Asp Thr 1554

<210> 2261 <211> 261 <212> PRT <213> Homo sapiens

<400> 2261
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10 Leu Ser Phe Gly Glu Thr Ala Ser Val Glu Met Leu Pro Glu His Gly 20 25 Ser Cys Arg Pro Lys Ala Arg Ser Ser Ser Ala Arg Trp Ala Leu Thr 35 40 45 Cys Cys Leu Val Leu Leu Pro Phe Leu Ala Gly Leu Thr Thr Tyr Leu 50 55 Leu Val Ser Gln Leu Arg Ala Gln Gly Glu Ala Cys Val Gln Phe Gln 70 75 Ala Leu Lys Gly Gln Glu Phe Ala Pro Ser His Gln Gln Val Tyr Ala 85 90 Pro Leu Arg Ala Asp Gly Asp Lys Pro Arg Ala His Leu Thr Val Val 100 105 110 Arg Gln Thr Pro Thr Gln His Phe Lys Asn Gln Phe Pro Ala Leu His 115 120 125 Trp Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr 140 135 . Thr Asn Lys Phe Leu Leu Ile Pro Glu Ser Gly Asp Tyr Phe Ile Tyr 150 155 Ser Gln Val Thr Phe Arg Gly Met Thr Ser Glu Cys Ser Glu Ile Arg 170 165 Gln Ala Gly Arg Pro Asn Lys Pro Asp Ser Ile Thr Val Val Ile Thr 180 185 Lys Val Thr Asp Ser Tyr Pro Glu Pro Thr Gln Leu Leu Met Gly Thr 200 195 205 Lys Ser Val Cys Glu Val Gly Ser Asn Trp Phe Gln Pro Ile Tyr Leu 210 215 220 Gly Ala Met Phe Ser Leu Gln Glu Gly Asp Lys Leu Met Val Asn Val 230 235

<210> 2262
<211> 383
<212> PRT
<213> Homo sapiens

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85 90 95 90 85 Val Arg Gly Asn Val Leu Arg Phe Leu Pro Asp Gln Gly Phe Phe Leu 105 Tyr Pro Lys Lys Ile Ser Gln Ala Ser Ser Cys Leu Gln Lys Leu Leu 115 120 125 Tyr Phe Asn Leu Ser Ala Ile Lys Glu Arg Glu Gln Leu Thr Leu Ala 130 135 140 Gln Leu Gly Leu Asp Leu Gly Pro Asn Ser Tyr Tyr Asn Leu Gly Pro 150 . 155 Glu Leu Glu Leu Ala Leu Phe Leu Val Gln Glu Pro His Val Trp Gly 170 175 Gln Thr Thr Pro Lys Pro Gly Lys Met Phe Val Leu Arg Ser Val Pro 180 185 Trp Pro Gln Gly Ala Val His Phe Asn Leu Leu Asp Val Ala Lys Asp 200 205 Trp Asn Asp Asn Pro Arg Lys Asn Phe Gly Leu Phe Leu Glu Ile Leu 215 220 Val Lys Glu Asp Arg Asp Ser Gly Val Asn Phe Gln Pro Glu Asp Thr 230 Cys Ala Arg Leu Arg Cys Ser Leu His Ala Ser Leu Leu Val Val Thr . 245 250 Leu Asn Pro Asp Gln Cys His Pro Ser Arg Lys Arg Arg Ala Ala Ile 265 260 Pro Val Pro Lys Leu Ser Cys Lys Asn Leu Cys His Arg His Gln Leu 280 Phe Ile Asn Phe Arg Asp Leu Gly Trp His Lys Trp Ile Ile Ala Pro 290 295 300 295 300 Lys Gly Phe Met Ala Asn Tyr Cys His Gly Glu Cys Pro Phe Ser Leu 315 320 310 Thr Ile Ser Leu Asn Ser Ser Asn Tyr Ala Phe Met Gln Ala Leu Met 330 His Ala Val Asp Pro Glu Ile Pro Gln Ala Val Cys Ile Pro Thr Lys 340 345 350 Leu Ser Pro Ile Ser Met Leu Tyr Gln Asp Asn Asn Asp Asn Val Ile 355 360 365 Leu Arg His Tyr Glu Asp Met Val Val Asp Glu Cys Gly Cys Gly 375

<210> 2263 <211> 277 <212> PRT <213> Homo sapiens

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115 120 125 Ala Thr Cys Cys Tyr Leu Leu Ser Ser Ile Phe Gly Lys Gln Leu Val 130 135 140 Val Ser Tyr Phe Pro Asp Lys Val Ala Leu Leu Gln Arg Lys Val Glu 145 150 155 Glu Asn Arg Asn Ser Leu Phe Phe Phe Leu Leu Phe Leu Arg Leu Phe 165 170 Pro Met Thr Pro Asn Trp Phe Leu Asn Leu Ser Ala Pro Ile Leu Asn 180 185 190 Ile Pro Ile Val Gln Phe Phe Phe Ser Val Leu Ile Gly Leu Ile Pro 195 200 205 Tyr Asn Phe Ile Cys Val Gln Thr Gly Ser Ile Leu Ser Thr Leu Thr 210 215 220 Ser Leu Asp Ala Leu Phe Ser Trp Asp Thr Val Phe Lys Leu Leu Ala 235 Ile Ala Met Val Ala Leu Ile Pro Gly Thr Leu Ile Lys Lys Phe Ser 250 255 245 Gln Lys His Leu Gln Leu Asn Glu Thr Ser Thr Ala Asn His Ile His 265 260 Ser Arg Lys Asp Thr

<210> 2264 <211> 48 <212> PRT <213> Homo sapiens

275 277

<210> 2265 <211> 212 <212> PRT <213> Homo sapiens

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<210> 2266 <211> 321 <212> PRT <213> Homo sapiens

<400> 2266

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115 120 125 Asp Pro Gly Pro Gly Pro Ser Ile Gln Lys Thr Tyr Asp Leu Thr Arg 130 135 140

Tyr Leu Glu His Gln Leu Arg Ser Leu Ala Gly Thr Tyr Leu Asn Tyr 150 155 Leu Gly Pro Pro Phe Asn Glu Pro Asp Phe Asn Pro Pro Arg Leu Gly 165 175 170 Ala Glu Thr Leu Pro Arg Ala Thr Val Asp Leu Glu Val Trp Arg Ser 180 185 190 Leu Asn Asp Lys Leu Arg Leu Thr Gln Asn Tyr Glu Ala Tyr Ser His 200 205 Leu Leu Cys Tyr Leu Arg Gly Leu Asn Arg Gln Ala Ala Thr Ala Glu 215 220 Leu Arg Arg Ser Leu Ala His Phe Cys Thr Ser Leu Gln Gly Leu Leu 230 235 Gly Ser Ile Ala Gly Val Met Ala Ala Leu Gly Tyr Pro Leu Pro Gln 250 245 Pro Leu Pro Gly Thr Glu Pro Thr Trp Thr Pro Gly Pro Ala His Ser 265 270 260 Asp Phe Leu Gln Lys Met Asp Asp Phe Trp Leu Leu Lys Glu Leu Gln 285 280 Thr Trp Leu Trp Arg Ser Ala Lys Asp Phe Asn Arg Leu Lys Lys Lys 295 300 Met Gln Pro Pro Ala Ala Ala Val Thr Leu His Leu Gly Ala His Gly 310 315 Phe 321

<210> 2267 <211> 388 <212> PRT <213> Homo sapiens

<400> 2267 Arg Pro Arg Arg Gly Gln Gly Leu Val Gln Glu Val Gln Thr Glu Asn Val Thr Val Ala Glu Gly Gly Val Ala Glu Ile Thr Cys Arg Leu His 25 20 Gln Tyr Asp Gly Ser Ile Val Val Ile Gln Asn Pro Ala Arg Gln Thr 40 35 Leu Phe Phe Asn Gly Thr Arg Ala Leu Lys Asp Glu Arg Phe Gln Leu 60 55 Glu Glu Phe Ser Pro Arg Arg Val Arg Ile Arg Leu Ser Asp Ala Arg 65 70 75 80 70 Leu Glu Asp Glu Gly Gly Tyr Phe Cys Gln Leu Tyr Thr Glu Asp Thr 90 85 His His Gln Ile Ala Thr Leu Thr Val Leu Val Ala Pro Glu Asn Pro 100 105 Val Val Glu Val Arg Glu Gln Ala Val Glu Gly Gly Glu Val Glu Leu 125 115 120 Ser Cys Leu Val Pro Arg Ser Arg Pro Ala Ala Thr Leu Arg Trp Tyr 135 140 130 Arg Asp Arg Lys Glu Leu Lys Gly Val Ser Ser Ser Gln Glu Asn Gly
145 150 155 160 150 Lys Val Trp Ser Val Ala Ser Thr Val Arg Phe Arg Val Asp Arg Lys 165 170 175 Asp Asp Gly Gly Ile Ile Ile Cys Glu Ala Gln Asn Gln Ala Leu Pro 180 185 190 Ser Gly His Ser Lys Gln Thr Gln Tyr Val Leu Asp Val Gln Tyr Ser 205 200 Pro Thr Ala Arg Ile His Ala Ser Gln Ala Val Val Arg Glu Gly Asp 215 220 Thr Leu Val Leu Thr Cys Ala Val Thr Gly Asn Pro Arg Pro Asn Gln 235 230

Ile Arg Trp Asn Arg Gly Asn Glu Ser Leu Pro Glu Arg Ala Glu Ala 245 250 Val Gly Glu Thr Leu Thr Leu Pro Gly Leu Val Ser Ala Asp Asn Gly 270 260 265 Thr Tyr Thr Cys Glu Ala Ser Asn Lys His Gly His Ala Arg Ala Leu 280 Tyr Val Leu Val Val Tyr Gly Glu Ser Arg Leu Arg Pro Thr Glu Gly 295 300 Gly Gly Gly Ala Pro Asp Pro Gly Ala Val Val Glu Ala Gln Thr Ser 310 315 Val Pro Tyr Ala Ile Val Gly Gly Ile Leu Ala Leu Leu Val Phe Leu 325 330 Ile Ile Cys Val Leu Val Gly Met Val Trp Cys Ser Val Arg Gln Lys 350 340 , 345 Gly Ser Tyr Leu Thr His Glu Ala Ser Gly Leu Asp Glu Gln Gly Glu 355 360 365 360 365 Ala Arg Glu Ala Phe Leu Asn Gly Ser Asp Gly His Lys Arg Lys Glu 370 375 Glu Phe Phe Ile 388

<210> 2268 <211> 883 <212> PRT <213> Homo sapiens

50 55 60
Ser Gly Val Ser Thr Ala Cys Gly Glu Thr Pro Glu Gln Ile Arg Ala
65 70 75 80
Pro Ser Gly Ile Ile Thr Ser Pro Gly Trp Pro Ser Glu Tyr Pro Ala

Pro Ser Gly Ile Ile Thr Ser Pro Gly Trp Pro Ser Glu Tyr Pro Ala 85 90 95

Lys Ile Asn Cys Ser Trp Phe Ile Arg Ala Asn Pro Gly Glu Ile Ile 100 105 110

Thr Ile Ser Phe Gln Asp Phe Asp Ile Gln Gly Ser Arg Arg Cys Asn 115 120 125

Leu Asp Trp Leu Thr Ile Glu Thr Tyr Lys Asn Ile Glu Ser Tyr Arg
130
135
140

Ala Cys Gly Ser Thr Ile Pro Pro Pro Tyr Ile Ser Ser Gln Asp His
145 150 155 160

Ile Trp Ile Arg Phe His Ser Asp Asp Asn Ile Ser Arg Lys Gly Phe
165 170 175

Arg Leu Ala Tyr Phe Ser Gly Lys Ser Glu Glu Pro Asn Cys Ala Cys 180 185 190

Asp Gln Phe Arg Cys Gly Asn Gly Lys Cys Ile Pro Glu Ala Trp Lys 195 200 205

Cys Asn Asn Met Asp Glu Cys Gly Asp Arg Ser Asp Glu Glu Ile Cys 210 215 220 Ala Lys Glu Ala Asn Pro Pro Thr Ala Ala Ala Phe Gln Pro Cys Ala

225 230 235 240
Tyr Asn Gln Phe Gln Cys Leu Ser Arg Phe Thr Lys Val Tyr Thr Cys

tyr Ash Gin Phe Gin Cys Leu Ser Arg Phe Thr Lys Val Tyr Thr Cy
245 250 255

Leu Pro Glu Ser Leu Lys Cys Asp Gly Asn Ile Asp Cys Leu Asp Leu 260 265 270

Gly	Asp	Glu	Ile	Asp	Cys	Asp	Val	Pro	Thr	Cys	Gly	Gln	Trp	Leu	Lys
		275	Gly				280					285			
_	290					295					300				
305			Asn		310					315					320
Val			Arg	325					330					335	
			Lys 340					345					350		
		355	Leu				360					365			
	370		Gly			375					380				
	Ala	Arg	Gly	Phe		Ala	Thr	Tyr	Gln	Val 395	Asp	Gly	Phe	Cys	Leu 400
385 Pro	Trp	Glu	Ile		390 Cys	Gly	Gly	Asn	Trp		Cys	Tyr	Thr	Glu 415	
Gln	Arg	Cys	Asp	405 Gly	Tyr	Trp	His	Cys	410 Pro	Asn	Gly	Arg	Asp		Thr
			420 Met					425					430		
		435					440					445			
	450		Pro			455					460				
Asn 465	Gly	ser	Asp	Glu	Lys 470		Суз	Phe	Phe	Cys 475	Gln	Pro	Gly	Asn	Phe 480
His	Cys	Lys	Asn	Asn 485	Arg	Cys	Val	Phe	Glu 490	Ser	Trp	Val	Cys	Asp 495	Ser
Gln	Asp	Asp	Cys 500		Āsp	Gly	Ser	Asp 505		Glu	Asn	Сув	Pro 510	Val	Ile
Val	Pro	Thr 515	Arg	Val	Ile	Thr	Ala 520		Val	Ile	Gly	Ser 525	Leu	Ile	Cys
_	530		Leu			535					540				
Leu 545		Met	Phe	Glu	Arg 550		Ser	Phe	Glu	Thr 555		Leu	Ser	Arg	<b>Val</b> 560
Glu	Ala	Glu	Leu	Leu 565	Arg	Arg	Glu	Ala	Pro 570	Pro		Tyr	Gly	Gln 575	Leu
Ile	Ala	Gln	Gly 580		Ile	Pro	Pro	Val 585	Glu		Phe	Pro	Val 590	Cys	
Pro	Asn	Gln 595	Ala	ser	Val	Leu	Glu 600	Asn		Arg	Leu	Ala 605		Arg	Ser
Gln		Gly	Phe	Thr	Ser	Val 615	Arg		Pro	Met	Ala 620			Ser	Ser
Asn	610 Ile	Trp	Asn	Arg	Ile			Phe	Ala		Ser	Arg	His	Ser	Gly
625 Ser	Leu	Ala	Leu	Val	630 Ser	Ala	. Asp	Gly	· Asp	635 Glu		Val	Pro	Ser	640 Gln
				645					650					655	Phe
			660					665					670	1	
		675					680					685	,		Met
	690					695	;				700				Pro
Pro 705		Thr	Ala	Val	Glu 710		Thr	· Val	Gly	715		Ala	Ser	Ser	Ser 720
Thr	Gln	Ser	Thr	Arg 725		Gly	His	Ala	Asp 730		Gly	Arg	Asp	Val 735	Thr
Ser	Val	Glu	Pro	Pro		· Val	. Ser	Pro	Ala		His	Gln	1 Let 750	Thr	Ser
Ala	. Leu	Sex 755	Arg		Thr	Glr	Gly 760	Leu		Trp	Val	Arg 765	Ph∈		Leu
Gly	770	Ser	Ser	Ser	Lev	Ser 775		Asr.	Glr	ser	780		a Arg	g Glr	Leu

Asp Asp Gly Val Ser Gly Arg Glu Asp Asp Asp Val Glu Met Leu 790 795 Ile Pro Ile Ser Asp Gly Ser Ser Asp Phe Asp Val Asn Asp Cys Ser 805 810 Arg Pro Leu Leu Asp Leu Ala Ser Asp Gln Gly Gln Gly Leu Arg Gln 825 Pro Tyr Asn Ala Thr Asn Pro Gly Val Arg Pro Ser Asn Arg Asp Gly 835 840 Pro Cys Glu Arg Cys Gly Ile Val His Thr Ala Gln Ile Pro Asp Thr 860 855 Cys Leu Glu Val Thr Leu Lys Asn Glu Thr Ser Asp Asp Glu Ala Leu 865 . 875 Leu Leu Cys 883

<210> 2269 <211> 54 <212> PRT <213> Homo sapiens

<210> 2270 <211> 175 <212> PRT <213> Homo sapiens

<400> 2270 Gly Gly Arg Ala Ser Trp Pro Glu Gln Ala Lys Glu Pro Arg Arg Glu 10 Gly His Thr Asp Lys Gln Gln Thr Glu Asp Val Leu Ala Ala Gly Leu 20 25 Arg Cys Leu Pro His Leu Pro Ala Ile Cys Ala Arg Arg Met Ser Pro 35 40 Ala Phe Arg Ala Met Asp Val Glu Pro Arg Ala Lys Gly Val Leu Leu Glu Pro Phe Val His Gln Val Gly Gly His Ser Cys Val Leu Arg Phe 70 75 Asn Glu Thr Thr Leu Cys Lys Pro Leu Val Pro Arg Glu His Gln Phe 85 90 Tyr Glu Thr Leu Pro Ala Glu Met Arg Lys Phe Thr Pro Gln Tyr Lys 105 Gly Lys Ser Gln Leu Leu Glu Gly Leu Pro His Trp Arg Gly Asp Val 115 120 125 Arg Asp Arg Gly His Gly Arg Pro Trp Gln Pro Ser Leu Glu Pro Ser 135 140 Leu Pro Pro Thr Leu Cys Phe Pro Ser Leu Ser Ser Phe Ser Ser Ser 150 155 Trp Pro Ser Ala Gln His Leu Thr Pro Ser Val Phe Asn Pro Trp . 170 165

<210> 2271 <211> 66 <212> PRT <213> Homo sapiens

<210> 2272 <211> 72 <212> PRT

<213> Homo sapiens

65 66

<210> 2273 <211> 1007 <212> PRT <213> Homo sapiens

 <400> 2273

 Gly Ser Ala Pro Arg Ala Ala Ala Thr Ala Met Ala Arg Ala Arg Pro Pro 1
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Arg Val Tyr Val Glu Leu Lys Phe Thr Val Arg Asp Cys Asn Ser Ile 120 125 Pro Asn Ile Pro Gly Ser Cys Lys Glu Thr Phe Asn Leu Phe Tyr Tyr Glu Ala Asp Ser Asp Val Ala Ser Ala Ser Ser Pro Phe Trp Met Glu Asn Pro Tyr Val Lys Val Asp Thr Ile Ala Pro Asp Glu Ser Phe Ser Arg Leu Asp Ala Gly Arg Val Asn Thr Lys Val Arg Ser Phe Gly Pro Leu Ser Lys Ala Gly Phe Tyr Leu Ala Phe Gln Asp Gln Gly Ala Cys Met Ser Leu Ile Ser Val Arg Ala Phe Tyr Lys Lys Cys Ala Ser Thr Thr Ala Gly Phe Ala Leu Phe Pro Glu Thr Leu Thr Gly Ala Glu Pro Thr Ser Leu Val Ile Ala Pro Gly Thr Cys Ile Pro Asn Ala Val Glu Val Ser Val Pro Leu Lys Leu Tyr Cys Asn Gly Asp Gly Glu Trp Met 265 270 Val Pro Val Gly Ala Cys Thr Cys Ala Thr Gly His Glu Pro Ala Ala Lys Glu Ser Gln Cys Arg Pro Cys Pro Pro Gly Ser Tyr Lys Ala Lys Gln Gly Glu Gly Pro Cys Leu Pro Cys Pro Pro Asn Ser Arg Thr Thr 310 315 320 Ser Pro Ala Ala Ser Ile Cys Thr Cys His Asn Asn Phe Tyr Arg Ala Asp Ser Asp Ser Ala Asp Ser Ala Cys Thr Thr Val Pro Ser Pro Pro Arg Gly Val Ile Ser Asn Val Asn Glu Thr Ser Leu Ile Leu Glu Trp Ser Glu Pro Arg Asp Leu Gly Val Arg Asp Asp Leu Leu Tyr Asn Val Ile Cys Lys Lys Cys His Gly Ala Gly Gly Ala Ser Ala Cys Ser Arg Cys Asp Asp Asn Val Glu Phe Val Pro Arg Gln Leu Gly Leu Ser Glu Pro Arg Val His Thr Ser His Leu Leu Ala His Thr Arg Tyr Thr Phe Glu Val Gln Ala Val Asn Gly Val Ser Gly Lys Ser Pro Leu Pro Pro Arg Tyr Ala Ala Val Asn Ile Thr Thr Asn Gln Ala Ala Pro Ser Glu Val Pro Thr Leu Arg Leu His Ser Ser Ser Gly Ser Ser Leu Thr Leu Ser Trp Ala Pro Pro Glu Arg Pro Asn Gly Val Ile Leu Asp Tyr Glu Met Lys Tyr Phe Glu Lys Ser Glu Gly Ile Ala Ser Thr Val Thr Ser Gln Met Asn Ser Val Gln Leu Asp Gly Leu Arg Pro Asp Ala Arg Tyr Val Val Gln Val Arg Ala Arg Thr Val Ala Gly Tyr Gly Gln Tyr Ser Arg Pro Ala Glu Phe Glu Thr Thr Ser Glu Arg Gly Ser Gly Ala Gln Gln Leu Gln Glu Gln Leu Pro Leu Ile Val Gly Ser Ala Thr Ala Gly Leu Val Phe Val Val Ala Val Val Ile Ala Ile Val Cys Leu Arg 580 585 Lys Gln Arg His Gly Ser Asp Ser Glu Tyr Thr Glu Lys Leu Gln Gln Tyr Ile Ala Pro Gly Met Lys Val Tyr Ile Asp Pro Phe Thr Tyr Glu 

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Asp Pro Asn Glu Ala Val Arg Glu Phe Ala Lys Glu Ile Asp Val Ser
                                  635
                630
Cys Val Lys Ile Glu Glu Val Ile Gly Ala Gly Glu Phe Gly Glu Val
                                                 655
                              650
             645
Cys Arg Gly Arg Leu Lys Gln Pro Gly Arg Arg Glu Val Phe Val Ala
                                            670
                          665
          660
Ile Lys Thr Leu Lys Val Gly Tyr Thr Glu Arg Gln Arg Arg Asp Phe
                                         685
                        680
Leu Ser Glu Ala Ser Ile Met Gly Gln Phe Asp His Pro Asn Ile Ile
                                      700
                    695
Arg Leu Glu Gly Val Val Thr Lys Ser Arg Pro Val Met Ile Leu Thr
                          715
                 710
Glu Phe Met Glu Asn Cys Ala Leu Asp Ser Phe Leu Arg Leu Asn Asp
                      730
Gly Gln Phe Thr Val Ile Gln Leu Val Gly Met Leu Arg Gly Ile Ala
                  745
       740
Ala Gly Met Lys Tyr Leu Ser Glu Met Asn Tyr Val His Arg Asp Leu
       755 760
                                          765
Ala Ala Arg Asn Ile Leu Val Asn Ser Asn Leu Val Cys Lys Val Ser
                                     780
                    775
Asp Phe Gly Leu Ser Arg Phe Leu Glu Asp Asp Pro Ser Asp Pro Thr
                                  795
                 790
Tyr Thr Ser Ser Leu Gly Gly Lys Ile Pro Ile Arg Trp Thr Ala Pro
                             810
             805
Glu Ala Ile Ala Tyr Arg Lys Phe Thr Ser Ala Ser Asp Val Trp Ser
                                             830
                           825
          820
Tyr Gly Ile Val Met Trp Glu Val Met Ser Tyr Gly Glu Arg Pro Tyr
                                          845
      835 840
Trp Asp Met Ser Asn Gln Asp Val Ile Asn Ala Val Glu Gln Asp Tyr
                                      860
                    855
Arg Leu Pro Pro Pro Met Asp Cys Pro Thr Ala Leu His Gln Leu Met
                          875 . 880
                870
Leu Asp Cys Trp Val Arg Asp Arg Asn Leu Arg Pro Lys Phe Ser Gln
                       890
Ile Val Asn Thr Leu Asp Lys Leu Ile Arg Asn Ala Ala Ser Leu Lys
                           905
                                           910
         900
Val Ile Ala Ser Ala Gln Ser Gly Met Ser Gln Pro Leu Leu Asp Arg
                                          925
                        920
      915
Thr Val Pro Asp Tyr Thr Thr Phe Thr Thr Val Gly Asp Trp Leu Asp
                                      940
                  935
Ala Ile Lys Met Gly Arg Tyr Lys Glu Ser Phe Val Ser Ala Gly Phe
                           955
                950
Ala Ser Phe Asp Leu Val Ala Gln Met Thr Ala Glu Asp Leu Leu Arg
                               970
             965
Ile Gly Val Thr Leu Ala Gly His Gln Lys Lys Ile Leu Ser Ser Ile
                         985
Gln Asp Met Arg Leu Gln Met Asn Gln Thr Leu Pro Val Gln Val
                                         1005 1007
                        1000
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<210> 2274 <211> 167 <212> PRT <213> Homo sapiens

Asp Ile Leu Ala Ala Glu Tyr Ile Ser Thr Val Lys Thr Leu Ser Pro Asp Gln Arg Val Glu Arg Leu Gln Lys Ile Gln Asn Ala Tyr Ser Lys
65 70 75 80 65 70 75 Cys Lys Glu Tyr Ser Asp Asp Lys Val Gln Leu Ala Met Gln Thr Tyr 90 85 Glu Met Val Asp Lys His Ile Arg Arg Leu Asp Ala Asp Leu Ala Arg 100 105 Phe Glu Ala Asp Leu Lys Asp Lys Met Glu Gly Ser Asp Phe Glu Ser 115 120 125 Ser Gly Gly Arg Gly Leu Lys Lys Gly Arg Gly Gln Lys Glu Lys Arg 130 135 140 Gly Ser Arg Gly Arg Gly Arg Thr Ser Glu Glu Asp Thr Pro Lys 150 155 Lys Lys Lys His Lys Gly Gly 165 167

<210> 2275 <211> 47 <212> PRT <213> Homo sapiens

<210> 2276 <211> 114 <212> PRT <213> Homo sapiens

<400> 2276

Gly Pro Cys Lys Val Cys Cys Ile Thr Leu Ala Ile Met Leu Gln Cys 5 10 His Ser Phe Tyr Arg Lys Asp Val Gln Val Glu His Pro Lys Ser Leu 20 25 Asn Pro Lys Tyr Ser Gln Ile Glu Asn Phe Leu Ser Ala Asp Met Ala 35 40 Leu Lys Arg Lys Cys Leu Leu Ser Ile Ser Asp Leu Asp Phe Trp Ile 55 Trp Asp Ala Gln Pro Val Gly Ile Met Gln Thr Leu Gln Asn Leu Lys
65 75 80 Lys Ile Pro Asn Pro Gly Cys Phe Trp Ser Gln Ala Phe Gln Ile Arg · 85 90 95 Asp Thr Gln Pro Ile Leu Pro Leu Gly Gly Arg Tyr Tyr Ile Thr Ile 105

Arg Gln 114

<210> 2277 <211> 117 <212> PRT

## <213> Homo sapiens

<400> 2277 Arg Ile Gln Arg Pro Leu Asn Ser Arg Ser Pro Asn His Ser Leu Phe 10 5 Val Lys Ala Glu Leu Thr Ala Lys Gln Ala Thr Met Lys Leu Ser Val 25 20 Cys Leu Leu Leu Val Thr Leu Ala Leu Cys Cys Tyr Gln Ala Asn Ala 40 Glu Phe Cys Pro Ala Leu Val Ser Glu Leu Leu Asp Phe Phe Phe Ile 55 Ser Glu Pro Leu Phe Lys Leu Ser Leu Ala Lys Phe Asp Ala Pro Pro 65 70 75 80 Glu Ala Val Ala Ala Lys Leu Gly Val Lys Arg Cys Thr Asp Gln Met 85 90 95 Ser Leu Gln Lys Arg Ser Leu Ile Ala Glu Val Leu Val Lys Ile Leu 105 100 Lys Lys Cys Ser Val 115 117

<210> ·2278 <211> 153 <212> PRT <213> Homo sapiens

<400> 2278 Leu Ala Pro Leu Arg Cys Gln Pro Gly Thr Arg Thr Gln Pro Arg Ser

1 5 10 15 His Pro Ala Ala Asn Asp Pro Ser Ala Ala Met Ser Ala Ala Gly Ala 20 . 25 30 Arg Gly Leu Arg Ala Thr Tyr His Arg Leu Leu Asp Lys Val Glu Leu 35 40 45 Met Leu Pro Glu Lys Leu Arg Pro Leu Tyr Asn His Pro Ala Gly Pro 50 55 Arg Thr Val Phe Phe Trp Ala Pro Ile Met Lys Trp Gly Leu Val Cys 75 70 Ala Gly Leu Ala Asp Met Ala Arg Pro Ala Glu Lys Leu Ser Thr Ala 90 85 Gln Ser Ala Val Leu Met Ala Thr Gly Phe Ile Trp Ser Arg Tyr Ser 100 105 110 Leu Val Ile Ile Pro Lys Asn Trp Ser Leu Phe Ala Val Asn Phe Phe 115 120 125 Val Gly Ala Ala Gly Ala Ser Gln Leu Phe Arg Ile Trp Arg Tyr Asn 130 135 140 Gln Glu Leu Lys Ala Lys Ala His Lys 150 153

<210> 2279 <211> 338 <212> PRT <213> Homo sapiens

Ala Gly Ser Leu Leu Arg Gln Ser Pro Gln Pro Arg His Thr Phe Tyr 40 Ala Gly Pro Arg Leu Ser Ala Ser Ala Ser Ser Lys Glu Leu Leu Met 50 55 Lys Leu Arg Arg Lys Thr Gly Tyr Ser Phe Val Asn Cys Lys Lys Ala 70 75 Leu Glu Thr Cys Gly Gly Asp Leu Lys Gln Ala Glu Ile Trp Leu His 90 Lys Glu Ala Gln Lys Glu Gly Trp Ser Lys Ala Ala Lys Leu Gln Gly 105 100 Arg Lys Thr Lys Glu Gly Leu Ile Gly Leu Leu Gln Glu Gly Asn Thr 120 125 Thr Val Leu Val Glu Val Asn Cys Glu Thr Asp Phe Val Ser Arg Asn 135 140 Leu Lys Phe Gln Leu Leu Val Gln Gln Val Ala Leu Gly Thr Met Met 155 150 His Cys Gln Thr Leu Lys Asp Gln Pro Ser Ala Tyr Ser Lys Gly Phe 170 165 Leu Asn Ser Ser Glu Leu Ser Gly Leu Pro Ala Gly Pro Asp Arg Glu 180 185 Gly Ser Leu Lys Asp Gln Leu Ala Leu Ala Ile Gly Lys Leu Gly Glu 200 195 205 Asn Met Ile Leu Lys Arg Ala Ala Trp Val Lys Val Pro Ser Gly Phe 215 220 Tyr Val Gly Ser Tyr Val His Gly Ala Met Gln Ser Pro Ser Leu His 230 235 Lys Leu Val Leu Gly Lys Tyr Gly Ala Leu Val Ile Cys Glu Thr Ser 250 245 Glu Gln Lys Thr Asn Leu Glu Asp Val Gly Arg Arg Leu Gly Gln His 260 265 270 Val Val Gly Met Ala Pro Leu Ser Val Gly Ser Leu Asp Asp Glu Pro 280 Gly Gly Glu Ala Glu Thr Lys Met Leu Ser Gln Pro Tyr Leu Leu Asp 295 300 Pro Ser Ile Thr Leu Gly Gln Tyr Val Gln Pro Gln Gly Val Ser Val 310 315 Val Asp Phe Val Arg Phe Glu Cys Gly Glu Glu Glu Ala Ala Glu Thr Glu 338

<210> 2280

<211> 558

<212> PRT

<213> Homo sapiens

<400> 2280

Asn Ser Arg Val Trp Gly Pro Trp Thr Glu Pro Ser Ala Gly Ser Leu 10 Arg Pro Met Ala Arg Lys Gln Asn Arg Asn Ser Lys Glu Leu Gly Leu 25 Val Pro Leu Thr Asp Asp Thr Ser His Ala Gly Pro Pro Gly Pro Gly 40 Arg Ala Leu Leu Glu Cys Asp His Leu Arg Ser Gly Val Pro Gly Gly Arg Arg Arg Lys Asp Trp Ser Cys Ser Leu Leu Val Ala Ser Leu Ala 75 70 Gly Ala Phe Gly Ser Ser Phe Leu Tyr Gly Tyr Asn Leu Ser Val Val 85 - 90 Asn Ala Pro Thr Pro Tyr Ile Lys Ala Phe Tyr Asn Glu Ser Trp Glu 100 105

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Arg Arg His Gly Arg Pro Ile Asp Pro Asp Thr Leu Thr Leu Leu Trp
                                        125
                        120
Ser Val Thr Val Ser Ile Phe Ala Ile Gly Gly Leu Val Gly Thr Leu
                                     140
                   135
Ile Val Lys Met Ile Gly Lys Val Leu Gly Arg Lys His Thr Leu Leu
                                 155
        150
Ala Asn Asn Gly Phe Ala Ile Ser Ala Ala Leu Leu Met Ala Cys Ser
                                              175
            165 170
Leu Gln Ala Gly Ala Phe Glu Met Leu Ile Val Gly Arg Phe Ile Met
                · 185
Gly Ile Asp Gly Gly Val Ala Leu Ser Val Leu Pro Met Tyr Leu Ser
                                  205
                        200
      195
Glu Ile Ser Pro Lys Glu Ile Arg Gly Ser Leu Gly Gln Val Thr Ala
                             220
                   215
Ile Phe Ile Cys Ile Gly Val Phe Thr Gly Gln Leu Leu Gly Leu Pro
225 230 235 240
        230
Glu Leu Leu Gly Lys Glu Ser Thr Trp Pro Tyr Leu Phe Gly Val Ile
              245 250
Val Val Pro Ala Val Val Gln Leu Leu Ser Leu Pro Phe Leu Pro Asp
                                   270
                           265
        260
Ser Pro Arg Tyr Leu Leu Leu Glu Lys His Asn Glu Ala Arg Ala Val
                       280
                                  285
     275
Lys Ala Phe Gln Thr Phe Leu Gly Lys Ala Asp Val Ser Gln Glu Val
          295
                              300
Glu Glu Val Leu Ala Glu Ser Arg Val Gln Arg Ser Ile Arg Leu Val
                         315
                                                 320
        310
Ser Val Leu Glu Leu Leu Arg Ala Pro Tyr Val Arg Trp Gln Val Val
                      330 335
             325
Thr Val Ile Val Thr Met Ala Cys Tyr Gln Leu Cys Gly Leu Asn Ala
                                            350
                           345
Ile Trp Phe Tyr Thr Asn Ser Ile Phe Gly Lys Ala Gly Ile Pro Pro
                                   365
                        360
      355
Ala Lys Ile Pro Tyr Val Thr Leu Ser Thr Gly Gly Ile Glu Thr Leu
                                     380
                   375
Ala Ala Val Phe Ser Gly Leu Val Ile Glu His Leu Gly Arg Arg Pro
                                  395
       390
Leu Leu Ile Gly Gly Phe Gly Leu Met Gly Leu Phe Phe Gly Thr Leu
                              410
              405
Thr Ile Thr Leu Thr Leu Gln Asp His Ala Pro Trp Val Pro Tyr Leu
                                           430
                           425
Ser Ile Val Gly Ile Leu Ala Ile Ile Ala Ser Phe Cys Ser Gly Pro
                                  445
                        440
      435
Gly Gly Ile Pro Phe Ile Leu Thr Gly Glu Phe Phe Gln Gln Ser Gln
                   455
                                      460
   450
Arg Pro Ala Ala Phe Ile Ile Ala Gly Thr Val Asn Trp Leu Ser Asn
          470
                                 475
Phe Ala Val Gly Leu Leu Phe Pro Phe Ile Gln Lys Ser Leu Asp Thr
             485
                              490
Tyr Cys Phe Leu Val Phe Ala Thr Ile Cys Ile Thr Gly Ala Ile Tyr
                           505
Leu Tyr Phe Val Leu Pro Glu Thr Lys Asn Arg Thr Tyr Ala Glu Ile
                                      525
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                        520
Ser Gln Ala Phe Ser Lys Arg Asn Lys Ala Tyr Pro Pro Glu Glu Lys
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Ile Asp Ser Ala Val Thr Asp Gly Lys Ile Asn Gly Arg Pro
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<210> 2281

<211> 186

<212> PRT

<213> Homo sapiens

<400> 2281 Ala Ala Gly Ala Val Val Ser Ala Met Pro Lys Ala Lys Gly Lys Thr Arg Arg Gln Lys Phe Gly Tyr Ser Val Asn Arg Lys Arg Leu Asn Arg 25 Asn Ala Arg Arg Lys Ala Ala Pro Arg Ile Glu Cys Ser His Ile Arg 40 His Ala Trp Asp His Ala Lys Ser Val Arg Gln Asn Leu Ala Glu Met 55 Gly Leu Ala Val Asp Pro Asn Arg Ala Val Pro Leu Arg Lys Arg Lys 70 75 Val Lys Ala Met Glu Val Asp Ile Glu Glu Arg Pro Lys Glu Leu Val 90 Arg Lys Pro Tyr Val Leu Asn Asp Leu Glu Ala Glu Ala Ser Leu Pro 100 105 Glu Lys Lys Gly Asn Thr Leu Ser Arg Asp Leu Ile Asp Tyr Val Arg Tyr Met Val Glu Asn His Gly Glu Asp Tyr Lys Ala Met Ala Arg Asp 135 Glu Lys Asn Tyr Tyr Gln Asp Thr Pro Lys Gln Ile Arg Ser Lys Ile 150 155 Asn Val Tyr Lys Arg Phe Tyr Pro Ala Glu Trp Gln Asp Phe Leu Asp 165 170 Ser Leu Gln Lys Arg Lys Met Glu Val Glu 180 185 186

<210> 2282 <211> 137 <212> PRT <213> Homo sapiens

<400> 2282 Ser Asn Leu Cys Leu Gly Asn Ser Trp Arg Trp Arg Trp Ala Lys Ser 10 Arg His His Cys Ile Pro Thr Val Thr Leu Ser Lys Arg Ser Gly Asp 20 25 30 Ile Arg Gly Ser His Phe Ser Ser Pro Gln Arg Gln Arg Ser Gln Arg 40 Val Pro Gly Lys Glu Thr Ala Arg Val Leu Arg Ala Gly Lys Gln Gly 55 60 Arg Gly Gln Ile Pro Ile Pro Cys Pro Trp Pro Pro Pro Pro Pro Pro . 70 75 Pro Pro Pro Gly Ser Pro Gly Pro Gly Cys Arg Gln Phe His Gln Ser 85 90 Leu Glu Ala Lys Ala Arg His Pro Ala Ser Val Arg Glu Met Arg Gly 100 105 110 Lys Val Lys Met Arg Arg Ala Leu Arg Arg Ala Pro Ala Ser Thr Arg 115 120 Ala Ser Ser Arg Gln Pro Asn Pro Lys 135 137

<210> 2283 <211> 309 <212> PRT <213> Homo sapiens

<400> 2283

Pro Pro Val Pro Pro Ala Ser Arg Ser Asp Met Ala Gln Asn Leu Lys Asp Leu Ala Gly Arg Leu Pro Ala Gly Pro Arg Gly Met Gly Thr Ala 20 Leu Lys Leu Leu Gey Ala Gly Ala Val Ala Tyr Gly Val Arg Glu 40 Ser Val Phe Thr Val Glu Gly Gly His Arg Ala Ile Phe Phe Asn Arg 50 55 60 Ile Gly Gly Val Gln Gln Asp Thr Ile Leu Ala Glu Gly Leu His Phe 75 70 Arg Ile Pro Trp Phe Gln Tyr Pro Ile Ile Tyr Asp Ile Arg Ala Arg 85 Pro Arg Lys Ile Ser Ser Pro Thr Gly Ser Lys Asp Leu Gln Met Val 105 100 Asn Ile Ser Leu Arg Val Leu Ser Arg Pro Asn Ala Gln Glu Leu Pro 125 120 Ser Met Tyr Gln Arg Leu Gly Leu Asp Tyr Glu Glu Arg Val Leu Pro 140 135 Ser Ile Val Asn Glu Val Leu Lys Ser Val Val Ala Lys Phe Asn Ala 150 155 Ser Gln Leu Ile Thr Gln Arg Ala Gln Val Ser Leu Leu Ile Arg Arg 170 165 Glu Leu Thr Glu Arg Ala Lys Asp Phe Ser Leu Ile Leu Asp Asp Val 190 185 180 Ala Ile Thr Glu Leu Ser Phe Ser Arg Glu Tyr Thr Ala Ala Val Glu 205 200 Ala Lys Gln Val Ala Gln Gln Glu Ala Gln Arg Ala Gln Phe Leu Val 215 220 Glu Lys Ala Lys Gln Glu Gln Arg Gln Lys Ile Val Gln Ala Glu Gly 230 235 Glu Ala Glu Ala Ala Lys Met Leu Gly Glu Ala Leu Ser Lys Asn Pro 250 245 Gly Tyr Ile Lys Leu Arg Lys Ile Arg Ala Ala Gln Asn Ile Ser Lys 265 260 Thr Ile Ala Thr Ser Gln Asn Arg Ile Tyr Leu Thr Ala Asp Asn Leu 285 280 Val Leu Asn Leu Gln Asp Glu Ser Phe Thr Arg Gly Ser Asp Ser Leu 295 300 Ile Lys Gly Lys Lys 309

<210> 2284 <211> 242 <212> PRT <213> Homo sapiens

<400> 2284 Ser Gln Phe Ser Leu Ser Gln Val Leu Val Asp Ser Ala Glu Glu Gly 10 1 Ser Leu Ala Ala Ala Glu Leu Ala Ala Gln Lys Arg Glu Gln Arg 25 Leu Arg Lys Phe Arg Glu Leu His Leu Met Arg Asn Glu Ala Arg Lys Leu Asn His Gln Glu Val Val Glu Glu Asp Lys Arg Leu Lys Leu Pro 55 Ala Asn Trp Glu Ala Lys Lys Ala Arg Leu Glu Trp Glu Leu Lys Glu 70 Glu Glu Lys Lys Glu Cys Ala Ala Arg Gly Glu Asp Tyr Glu Lys 90 85 Val Lys Leu Leu Glu Ile Ser Ala Glu Asp Ala Glu Arg Trp Glu Arg 105

Lys Lys Lys Arg Lys Asn Pro Asp Leu Gly Phe Ser Asp Tyr Ala Ala 115 120 125 Ala Gln Leu Arg Gln Tyr His Arg Leu Thr Lys Gln Ile Lys Pro Asp 135 140 Met Glu Thr Tyr Glu Arg Leu Arg Glu Lys His Gly Glu Glu Phe Phe 145 150 155 Pro Thr Ser Asn Ser Leu Leu His Gly Thr His Val Pro Ser Thr Glu 165 170 Glu Ile Asp Arg Met Val Ile Asp Leu Glu Lys Gln Ile Glu Lys Arg 185 180 Asp Lys Tyr Ser Arg Arg Arg Pro Tyr Asn Asp Asp Ala Asp Ile Asp 195 200 205 Tyr Ile Asn Glu Arg Asn Ala Lys Phe Asn Lys Lys Ala Glu Arg Phe 215 220 Tyr Gly Lys Tyr Thr Ala Glu Ile Lys Gln Asn Leu Glu Arg Gly Thr 225 230 235 Ala Val 242

<210> 2285 <211> 83 <212> PRT <213> Homo sapiens

<400> 2285 Leu Val Ser Ser Thr Val Asn Leu Leu Thr Glu Lys Ala Pro Trp Asn 1 5 10 Ser Leu Ala Trp Thr Val Thr Ser Tyr Val Phe Leu Lys Phe Leu Gln Gly Gly Gly Thr Gly Ser Thr Gly Met Arg Asp Ser Ala Leu Thr Leu 35 40 45 Leu Gly Ile Gly Pro Ser His Arg His Ser Leu Ser Ile Arg Leu Ser 55 60 Gln His Ser Ser Pro Ala Pro Met Tyr Ser Gln Thr Phe His Ile Leu 70 Val Leu Gly 83

<210> 2286 <211> 213 <212> PRT <213> Homo sapiens

<400> 2286 Ser Gly Arg Glu Cys Asn Met Ala Lys Thr Tyr Asp Tyr Leu Phe Lys 5 10 Leu Leu Leu Ile Gly Asp Ser Gly Val Gly Lys Thr Cys Val Leu Phe 25 20 Arg Phe Ser Glu Asp Ala Phe Asn Ser Thr Phe Ile Ser Thr Ile Gly 35 40 Ile Asp Phe Lys Ile Arg Thr Ile Glu Leu Asp Gly Lys Arg Ile Lys 55 Leu Gln Ile Trp Asp Thr Ala Gly Gln Glu Arg Phe Arg Thr Ile Thr 70 75 Thr Ala Tyr Tyr Arg Gly Ala Met Gly Ile Met Leu Val Tyr Asp Ile 85 90 Thr Asn Glu Lys Ser Phe Asp Asn Ile Arg Asn Trp Ile Arg Asn Ile 100 105

Glu Glu His Ala Ser Ala Asp Val Glu Lys Met Ile Leu Gly Asn Lys 120 115 Cys Asp Val Asn Asp Lys Arg Gln Val Ser Lys Glu Arg Gly Glu Lys 135 140 130 Leu Ala Leu Asp Tyr Gly Ile Lys Phe Met Glu Thr Ser Ala Lys Ala 155 150 Asn Ile Asn Val Glu Asn Ala Phe Phe Thr Leu Ala Arg Asp Ile Lys 165 170 Ala Lys Met Asp Lys Lys Leu Glu Gly Asn Ser Pro Gln Gly Ser Asn 190 180 185 Gln Gly Val Lys Ile Thr Pro Asp Gln Gln Lys Arg Ser Ser Phe Phe 200 205 195 Arg Cys Val Leu Leu 210 213

<210> 2287 <211> 27 <212> PRT <213> Homo sapiens

25 27

<210> 2288 <211> 219

> <212> PRT <213> Homo sapiens

20

<400> 2288 Leu His Pro Ala Ala Thr Ser Thr Ala Trp Leu His Val Pro Pro Gly 5 10 1 Leu Ser Met Ala Leu Ser Trp Val Leu Thr Val Leu Ser Leu Leu Pro 25 20 Leu Leu Glu Ala Gln Ile Pro Leu Cys Ala Asn Leu Val Pro Val Pro 40 45 35 Ile Thr Asn Ala Thr Leu Asp Arg Ile Thr Gly Lys Trp Phe Tyr Ile 55 60 Ala Ser Ala Phe Arg Asn Glu Glu Tyr Asn Lys Ser Val Gln Glu Ile 70 75 Gln Ala Thr Phe Phe Tyr Phe Thr Pro Asn Lys Thr Glu Asp Thr Ile 85 90 Phe Leu Arg Glu Tyr Gln Thr Arg Gln Asp Gln Cys Ile Tyr Asn Thr 105 110 100 Thr Tyr Leu Asn Val Gln Arg Glu Asn Gly Thr Ile Ser Arg Tyr Val 120 115 Gly Gly Gln Glu His Phe Ala His Leu Leu Ile Leu Arg Asp Thr Lys 140 135 Thr Tyr Met Leu Ala Phe Asp Val Asn Asp Glu Lys Asn Trp Gly Leu 155 150 Ser Val Tyr Ala Asp Lys Pro Glu Thr Thr Lys Glu Gln Leu Gly Glu 175 165 170 Phe Tyr Glu Ala Leu Asp Cys Leu Arg Ile Pro Lys Ser Asp Val Val 190 180 185 Tyr Thr Asp Trp Lys Lys Asp Lys Cys Glu Pro Leu Glu Lys Gln His 200 195

Glu Lys Glu Arg Lys Gln Glu Glu Gly Glu Ser 210 215 219

> <210> 2289 <211> 342 <212> PRT <213> Homo sapiens

<400> 2289 Ser Ser Val Ala Glu Phe Pro Glu Arg Val Gln Leu Ser Gln Pro Gln 10 Asn Trp Asn Phe Ser Gly Ala Gly Gly Ala Trp Ser Leu Asp Phe Ala 20 25 Glu Gln Leu Lys Trp Ser Ala Glu Leu Ala Arg Leu Gly Glu Ser Ile Met Asp Gly Lys Gln Gly Gly Met Asp Gly Ser Lys Pro Ala Gly Pro 55 60 Arg Asp Phe Pro Gly Ile Arg Leu Leu Ser Asn Pro Leu Met Gly Asp . 70 75 Ala Val Ser Asp Trp Ser Pro Met His Glu Ala Ala Ile His Gly His
85 90 95 Gln Leu Ser Leu Arg Asn Leu Ile Ser Gln Gly Trp Ala Val Asn Ile 100 . 105 110 Ile Thr Ala Asp His Val Ser Pro Leu His Glu Ala Cys Leu Gly Gly 115 120 125 His Leu Ser Cys Val Lys Ile Leu Leu Lys His Gly Ala Gln Val Asn 130 135 140 Gly Val Thr Ala Asp Trp His Thr Pro Leu Phe Asn Ala Cys Val Ser 145 150 155 160 Gly Ser Trp Asp Cys Val Asn Leu Leu Leu Gln His Gly Ala Ser Val 165 170 Gln Pro Glu Ser Asp Leu Ala Ser Pro Ile His Glu Ala Ala Arg Arg 190 180 185 Gly His Val Glu Cys Val Asn Ser Leu Ile Ala Tyr Gly Gly Asn Ile 200 205 Asp His Lys Ile Ser His Leu Gly Thr Pro Leu Tyr Leu Ala Cys Glu 215 220 Asn Gln Gln Arg Ala Cys Val Lys Lys Leu Leu Glu Ser Gly Ala Asp 225 230 235 240 Val Asn Gln Gly Lys Gly Gln Asp Ser Pro Leu His Ala Val Ala Arg 250 255 245 Thr Ala Ser Glu Glu Leu Ala Cys Leu Leu Met Asp Phe Gly Ala Asp 265 Thr Gln Ala Lys Asn Ala Glu Gly Lys Arg Pro Val Glu Leu Val Pro 280 285 Pro Glu Ser Pro Leu Ala Gln Leu Phe Leu Glu Arg Glu Gly Pro Pro 295 300 Ser Leu Met Gln Leu Cys Arg Leu Arg Ile Arg Lys Cys Phe Gly Ile 310 315 Gln Gln His His Lys Ile Thr Lys Leu Val Leu Pro Glu Asp Leu Lys 325 Gln Phe Leu Leu His Leu 340 342

<210> 2290

<211> 400

<212> PRT

<213> Homo sapiens

<400> 2290 Lys Val Leu Ser Ile Arg Glu Pro Ala His Ser Thr Ala Arg Lys Ala 10 Ser Glu Pro Ser Gln Pro Ser Gln Pro Ser Gln Pro Gly Gly His Leu . 20 25 Ile Ala Arg Leu Arg Thr Met Asp Leu His Leu Phe Asp Tyr Ser Glu 35 40 45 Pro Gly Asn Phe Ser Asp Ile Ser Trp Pro Cys Asn Ser Ser Asp Cys 60 55 Ile Val Val Asp Thr Val Met Cys Pro Asn Met Pro Asn Lys Ser Val 75 Leu Leu Tyr Thr Leu Ser Phe Ile Tyr Ile Phe Ile Phe Val Ile Gly 85 90 Met Ile Ala Asn Ser Val Val Val Trp Val Asn Ile Gln Ala Lys Thr 100 105 Thr Gly Tyr Asp Thr His Cys Tyr Ile Leu Asn Leu Ala Ile Ala Asp 115 120 125 Leu Trp Val Val Leu Thr Ile Pro Val Trp Val Val Ser Leu Val Gln 135 140 His Asn Gln Trp Pro Met Gly Glu Leu Thr Cys Lys Val Thr His Leu 145 150 155 Ile Phe Ser Ile Asn Leu Phe Gly Ser Ile Phe Phe Leu Thr Cys Met 170 165 Ser Val Asp Arg Tyr Leu Ser Ile Thr Tyr Phe Thr Asn Thr Pro Ser 180 185 190 Ser Arg Lys Lys Met Val Arg Arg Val Val Cys Ile Leu Val Trp Leu 195 200 205 Leu Ala Phe Cys Val Ser Leu Pro Asp Thr Tyr Tyr Leu Lys Thr Val 215 220 Thr Ser Ala Ser Asn Asn Glu Thr Tyr Cys Arg Ser Phe Tyr Pro Glu 235 230 His Ser Ile Lys Glu Trp Leu Ile Gly Met Glu Leu Val Ser Val Val 245 250 Leu Gly Phe Ala Val Pro Phe Ser Ile Ile Ala Val Phe Tyr Phe Leu 260 265 270 Leu Ala Arg Ala Ile Ser Ala Ser Ser Asp Gln Glu Lys His Ser Ser 275 280 285 Arg Lys Ile Ile Phe Ser Tyr Val Val Val Phe Leu Val Cys Trp Leu 300 290 295 Pro Tyr His Val Ala Val Leu Leu Asp Ile Phe Ser Ile Leu His Tyr 315 305 310 Ile Pro Phe Thr Cys Arg Leu Glu His Ala Leu Phe Thr Ala Leu His 330 335 325 Val Thr Gln Cys Leu Ser Leu Val His Cys Cys Val Asn Pro Val Leu 340 345 350 Tyr Ser Phe Ile Asn Arg Asn Tyr Arg Tyr Glu Leu Met Lys Ala Phe 355 360 365 Ile Phe Lys Tyr Ser Ala Lys Thr Gly Leu Thr Lys Leu Ile Asp Ala 375 380 Ser Arg Val Ser Glu Thr Glu Tyr Ser Ala Leu Glu Gln Ser Thr Lys 395 390

<210> 2291

<211> 120

<212> PRT

<213> Homo sapiens

<400> 2291

Asp Met Ala Gly Leu Met Thr Ile Val Thr Ser Leu Leu Phe Leu Gly 10 Val Cys Ala His His Ile Ile Pro Thr Gly Ser Val Val Leu Pro Ser 20 25 Pro Cys Cys Met Phe Phe Val Ser Lys Arg Ile Pro Glu Asn Arg Val 40 Val Ser Tyr Gln Leu Ser Ser Arg Ser Thr Cys Leu Lys Ala Gly Val 55 Ile Phe Thr Thr Lys Lys Gly Gln Gln Phe Cys Gly Asp Pro Lys Gln . 70 75 Glu Trp Val Gln Arg Tyr Met Lys Asn Leu Asp Ala Lys Gln Lys Lys 90 Ala Ser Pro Arg Ala Arg Ala Val Ala Val Lys Gly Pro Val Gln Arg 100 . 105 Tyr Pro Gly Asn Gln Thr Thr Cys

<210> 2292 <211> 328 <212> PRT <213> Homo sapiens

<400> 2292

Gly Gly Ile Gly Glu Ile Lys Gln Arg Pro Ser Cys Leu Gly Arg Cys 10 Leu Asp Pro Ser Leu Ser Val Leu Met Asn Ile Ser Leu Gly Leu Gly 20 Ser Val Phe Ser Ala Val Ile Ser Gln Lys Pro Ser Arg Asp Ile Cys 35 40 Gln Arg Gly Thr Ser Leu Thr Ile Gln Cys Gln Val Asp Ser Gln Val 55 60 Thr Met Met Phe Trp Tyr Arg Gln Gln Pro Gly Gln Ser Leu Thr Leu 70 Ile Ala Thr Ala Asn Gln Gly Ser Glu Ala Thr Tyr Glu Ser Gly Phe 85 90 Val Ile Asp Lys Phe Pro Ile Ser Arg Pro Asn Leu Thr Phe Ser Thr 105 100 110 Leu Thr Val Ser Asn Met Ser Pro Glu Asp Ser Ser Ile Tyr Leu Cys 120 125 115 Ser Ala Gly Arg Gln Gly Thr Tyr Glu Gln Tyr Phe Gly Pro Gly Thr 135 Arg Leu Thr Val Thr Glu Asp Leu Lys Asn Val Phe Pro Pro Glu Val 150 155 Ala Val Phe Glu Pro Ser Glu Ala Glu Ile Ser His Thr Gln Lys Ala 165 170 Thr Leu Val Cys Leu Ala Thr Gly Phe Tyr Pro Asp His Val Glu Leu 180 185 Ser Trp Trp Val Asn Gly Lys Glu Val His Ser Gly Val Ser Thr Asp 195 200 Pro Gln Pro Leu Lys Glu Gln Pro Ala Leu Asn Asp Ser Arg Tyr Cys 215 220 Leu Ser Ser Arg Leu Arg Val Ser Ala Thr Phe Trp Gln Asn Pro Arg 230 235 Asn His Phe Arg Cys Gln Val Gln Phe Tyr Gly Leu Ser Glu Asn Asp 245 250 Glu Trp Thr Gln Asp Arg Ala Lys Pro Val Thr Gln Ile Val Ser Ala 260 265 Glu Ala Trp Gly Arg Ala Asp Cys Gly Phe Thr Ser Glu Ser Tyr Gln 275 280 Gln Gly Val Leu Ser Ala Thr Ile Leu Tyr Glu Ile Leu Leu Gly Lys

Ala Thr Leu Tyr Ala Val Leu Val Ser Ala Leu Val Leu Met Ala Met 305 310 315 320 Val Lys Arg Lys Asp Ser Arg Gly 325 328

<210> 2293 <211> 293 <212> PRT <213> Homo sapiens

<400> 2293 Met Val Lys Val Val Pro Ala Thr Arg Gly Asn Leu Pro Arg Ser Gln 10 5 Leu Thr Gly Thr His Gln His Cys Gln Pro Arg Glu Pro Lys Ile Thr 25 20 Ala Ser Glu Arg Leu Arg Arg Pro Arg Ala Thr Ala Arg Leu Arg 40 35 Ala His Ala Ala Pro Pro Glu Pro Pro Leu Ala Val Phe Ala Pro Pro 55 60 Ser Asp Arg Lys Glu Leu Leu Ala Leu Pro Val Ala Cys Asp Pro Val 80 75 70 Ile Ala Ser Val Met Ser Trp Val Gln Ala Ala Ser Leu Ile Gln Gly 85 Pro Gly Asp Lys Gly Asp Val Phe Asp Glu Glu Ala Asp Glu Ser Leu 100 105 110 Leu Ala Gln Arg Glu Trp Gln Ser Asn Met Gln Arg Arg Val Lys Glu 120 125 115 Gly Tyr Arg Asp Gly Ile Asp Ala Gly Lys Ala Val Thr Leu Gln Gln 140 135 Gly Phe Asn Gln Gly Tyr Lys Lys Gly Ala Glu Val Ile Leu Asn Tyr 145 150 155 160 Gly Arg Leu Arg Gly Thr Leu Ser Ala Leu Leu Ser Trp Cys His Leu 165 170 175 His Asn Asn Asn Ser Thr Leu Ile Asn Lys Ile Asn Asn Leu Leu Asp 185 180 Ala Val Gly Gln Cys Glu Glu Tyr Val Leu Lys His Leu Lys Ser Ile 195 205 200 Thr Pro Pro Ser His Val Val Asp Leu Leu Asp Ser Ile Glu Asp Met 220 215 Asp Leu Cys His Val Val Pro Ala Glu Lys Lys Ile Asp Glu Ala Lys 230 235 Asp Glu Arg Leu Cys Glu Asn Asn Ala Glu Phe Asn Lys Asn Cys Ser 250 245 Lys Ser His Ser Gly Ile Asp Cys Ser Tyr Val Glu Cys Cys Arg Thr 265 260 Gln Glu His Ala His Ser Gly Lys Pro Lys Pro His Met Asp Phe Gly 280 275 Thr Asp Ser Gln Phe 290 293

<210> 2294 <211> 265 <212> PRT <213> Homo sapiens

<400> 2294
Glu Ser. Ala Arg Trp Ser Arg Gln Leu Arg Arg Thr Leu Ile Arg Leu
1 5 10 15

Ser Phe Pro Ile Ser Cys Gly Arg Ser His Ala Phe Gly Gly Cys Lys 20 25 Met Ala Ala Thr Ser Gly Thr Asp Glu Pro Val Ser Gly Glu Leu Val 40 Ser Val Ala His Ala Leu Ser Leu Pro Ala Glu Ser Tyr Gly Asn Asp 55 Pro Asp Ile Glu Met Ala Trp Ala Met Arg Ala Met Gln His Ala Glu Val Tyr Tyr Lys Leu Ile Ser Ser Val Asp Pro Gln Phe Leu Lys Leu 85 . 90 Thr Lys Val Asp Asp Gln Ile Tyr Ser Glu Phe Arg Lys Asn Phe Glu 100 105 110 Thr Leu Arg Ile Asp Val Leu Asp Pro Glu Glu Leu Lys Ser Glu Ser 120 115 125 Ala Lys Glu Lys Trp Arg Pro Phe Cys Leu Lys Phe Asn Gly Ile Val 135 140 Glu Asp Phe Asn Tyr Gly Thr Leu Leu Arg Leu Asp Cys Ser Gln Gly 145 150 155 160 Tyr Thr Glu Glu Asn Thr Ile Phe Ala Pro Arg Ile Gln Phe Phe Ala 170 165 Ile Glu Ile Ala Arg Asn Arg Glu Gly Tyr Asn Lys Ala Val Tyr Ile 180 185 Ser Val Gln Asp Lys Glu Gly Glu Lys Gly Val Asn Asn Gly Gly Glu 200 Lys Arg Ala Asp Ser Gly Glu Glu Asn Thr Lys Asn Gly Glu Glu 215 220 Lys Gly Ala Asp Ser Gly Glu Glu Lys Glu Glu Gly Ile Asn Arg Glu 225 230 235 240 230 Asp Lys Thr Asp Lys Gly Glu Lys Gly Lys Glu Ala Asp Lys Glu 250 245 255 Ile Asn Lys Ser Gly Glu Lys Ala Met

<210> 2295 <211> 167 <212> PRT <213> Homo sapiens

<400> 2295

Gly Ala Ala Thr Leu Leu Arg Ser Ala Ser Ser Ala Ala Arg Lys Ala 10 Ala Glu Ala Glu Gln Val Trp Leu His Leu His Arg Tyr Leu Ser Ala Asp Arg Arg Val Leu Gly Leu Arg Glu Trp Gly Arg Pro Ala Ser Glu 35 40 Arg Glu Cys Ser Leu Cys Gln Arg Leu Lys Arg Glu Leu Asn Met Gly
50 60 55 Asp Val Glu Lys Gly Lys Lys Ile Phe Ile Met Lys Cys Ser Gln Cys 70 His Thr Val Glu Lys Gly Gly Lys His Lys Thr Gly Pro Asn Leu His 85 90 Gly Leu Phe Gly Arg Lys Thr Gly Gln Ala Pro Gly Tyr Ser Tyr Thr 100 105 Ala Ala Asn Lys Asn Lys Gly Ile Ile Trp Gly Glu Asp Thr Leu Met 120 Glu Tyr Leu Glu Asn Pro Lys Lys Tyr Ile Pro Gly Thr Lys Met Ile 135 · 140 Phe Val Gly Ile Lys Lys Glu Glu Arg Ala Asp Leu Ile Ala Tyr 150 155 Leu Lys Lys Ala Thr Asn Glu 165

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<210> 2296
<211> 182
<212> PRT
<213> Homo sapiens
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<400> 2296 Glu Gly Arg Arg Gly Lys Phe Gly Gly Lys Leu Cys Asn Phe Leu Phe 1 10 15 10 Tyr Phe His Ser Asn Ser Ala Glu Ser Arg Met Asp Val Leu Phe Val 25 20 Ala Ile Phe Ala Val Pro Leu Ile Leu Gly Gln Glu Tyr Glu Asp Glu
35 40 45 40 Glu Arg Leu Gly Glu Asp Glu Tyr Tyr Gln Val Val Tyr Tyr Thr 50 55 Val Thr Pro Ser Tyr Asp Asp Phe Ser Ala Asp Phe Thr Ile Asp Tyr 70 Ser Ile Phe Glu Ser Glu Asp Arg Leu Asn Arg Leu Asp Lys Asp Ile 90 85 Thr Glu Ala Ile Glu Thr Thr Ile Ser Leu Glu Thr Ala Arg Ala Asp 100 105 His Pro Lys Pro Val Thr Val Lys Pro Val Thr Thr Glu Pro Gln Ser 115 120 125 Pro Arg Ser Glu Ala Met Pro Cys Pro Val Leu Arg Ser Pro Ile Pro 130 135 140 Leu Pro Pro Val Arg Val Pro Leu Phe Arg Trp Gly Cys Ile Ser Cys 145 150 155 Lys Lys Val Gly Arg Arg Leu Leu Met Thr Leu Trp Met Gly Val Trp 170 165 Gln Glu Glu Ile Gly Arg 180 182

<210> 2297 <211> 76 <212> PRT <213> Homo sapiens

<210> 2298 <211> 1020 <212> PRT <213> Homo sapiens

<400> 2298

Met Glu Pro Gly Glu Val Lys Asp Arg Ile Leu Glu Asn Ile Ser Leu 10 Ser Val Lys Lys Leu Gln Ser Tyr Phe Ala Ala Cys Glu Asp Glu Ile 25 Pro Ala Ile Arg Asn His Asp Lys Val Leu Gln Arg Leu Cys Glu His 40 Leu Asp His Ala Leu Leu Tyr Gly Leu Gln Asp Leu Ser Ser Gly Tyr 55 Trp Val Leu Val Val His Phe Thr Arg Arg Glu Ala Ile Lys Gln Ile 70 75 Glu Val Leu Gln His Val Ala Thr Asn Leu Gly Arg Ser Arg Ala Trp Leu Tyr Leu Ala Leu Asn Glu Asn Ser Leu Glu Ser Tyr Leu Arg Leu 100 105 Phe Gln Glu Asn Leu Gly Leu Leu His Lys Tyr Tyr Val Lys Asn Ala .120 Leu Val Cys Ser His Asp His Leu Thr Leu Phe Leu Thr Leu Val Ser 135 140 Gly Leu Glu Phe Ile Arg Phe Glu Leu Asp Leu Asp Ala Pro Tyr Leu 150 155 Asp Leu Ala Pro Tyr Met Pro Asp Tyr Tyr Lys Pro Gln Tyr Leu Leu 170 Asp Phe Glu Asp Arg Leu Pro Ser Ser Val His Gly Ser Asp Ser Leu 180 185 Ser Leu Asn Ser Phe Asn Ser Val Thr Ser Thr Asn Leu Glu Trp Asp 200 195 Asp Ser Ala Ile Ala Pro Ser Ser Glu Asp Tyr Asp Phe Gly Asp Val 215 220 Phe Pro Ala Val Pro Ser Val Pro Ser Thr Asp Trp Glu Asp Gly Asp 230 235 Leu Thr Asp Thr Val Ser Gly Pro Arg Ser Thr Ala Ser Asp Leu Thr 250 245 Ser Ser Lys Ala Ser Thr Arg Ser Pro Thr Gln Arg Gln Asn Pro Phe 260 265 Asn Glu Glu Pro Ala Glu Thr Val Ser Ser Ser Asp Thr Thr Pro Val 280 His Thr Thr Ser Gln Glu Lys Glu Glu Ala Gln Ala Leu Asp Pro Pro 295 300 Asp Ala Cys Thr Glu Leu Glu Val Ile Arg Val Thr Lys Lys Lys 310 315 Ile Gly Lys Lys Lys Ser Arg Ser Asp Glu Glu Ala Ser Pro Leu 325 330 His Pro Ala Cys Ser Gln Lys Lys Cys Ala Lys Gln Gly Asp Gly Asp 345 Ser Arg Asn Gly Ser Pro Ser Leu Gly Arg Asp Ser Pro Asp Thr Met 360 365 Leu Ala Ser Pro Gln Glu Glu Gly Glu Gly Pro Ser Ser Thr Thr Glu 375 380 Ser Ser Glu Arg Ser Glu Pro Gly Leu Leu Ile Pro Glu Met Lys Asp 390 395 Thr Ser Met Glu Arg Leu Gly Gln Pro Leu Ser Lys Val Ile Asp Gln 405 410 Leu Asn Gly Gln Leu Asp Pro Ser Thr Trp Cys Ser Arg Ala Glu Pro 420 425 Pro Asp Gln Ser Phe Arg Thr Gly Ser Pro Gly Asp Ala Pro Glu Arg 440 Pro Pro Leu Cys Asp Phe Ser Glu Gly Leu Ser Ala Pro Met Asp Phe 455 460 Tyr Arg Phe Thr Val Glu Ser Pro Ser Thr Val Thr Ser Gly Gly Gly 470 475 His His Asp Pro Ala Gly Leu Gly Gln Pro Leu His Val Pro Ser Ser 490 Pro Glu Ala Ala Gly Gln Glu Glu Gly Gly Gly Gly Glu Gly Gln

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Thr Pro Arg Pro Leu Glu Asp Thr Thr Arg Glu Ala Gln Glu Leu Glu
                        520
Ala Gln Leu Ser Leu Val Arg Glu Gly Pro Val Ser Glu Pro Glu Pro
                   535
                                     540
Gly Thr Gln Glu Val Leu Cys Gln Leu Lys Arg Asp Gln Pro Ser Pro
                                  555
               550
Cys Leu Ser Ser Ala Glu Asp Ser Gly Val Asp Glu Gly Gln Gly Ser
                                                575
                              570
           565
Pro Ser Glu Met Val His Ser Ser Glu Phe Arg Val Asp Asn Asn His
                                            590
                           585
         580
Leu Leu Leu Met Ile His Val Phe Arg Glu Asn Glu Glu Gln Leu
                                   605
                        600
Phe Lys Met Ile Arg Met Ser Thr Gly His Met Glu Gly Asn Leu Gln
           615
                                      620
Leu Leu Tyr Val Leu Leu Thr Asp Cys Tyr Val Tyr Leu Leu Arg Lys
                                 635
         630
Gly Ala Thr Glu Lys Pro Tyr Leu Val Glu Glu Ala Val Ser Tyr Asn
                     650
             645
Glu Leu Asp Tyr Val Ser Val Gly Leu Asp Gln Gln Thr Val Lys Leu
                           665
                                           670
         660
Val Cys Thr Asn Arg Arg Lys Gln Phe Leu Leu Asp Thr Ala Asp Val
                       680
                                         685
     675
Ala Leu Ala Glu Phe Phe Leu Ala Ser Leu Lys Ser Ala Met Ile Lys
                                    700
            695
  690
Gly Cys Arg Glu Pro Pro Tyr Pro Ser Ile Leu Thr Asp Ala Thr Met
         710
                       715
Glu Lys Leu Ala Leu Ala Lys Phe Val Ala Gln Glu Ser Lys Cys Glu
                      730
              725
Ala Ser Ala Val Thr Val Arg Phe Tyr Gly Leu Val His Trp Glu Asp
                           745
                                            750
Pro Thr Asp Glu Ser Leu Gly Pro Thr Pro Cys His Cys Ser Pro Pro
                        760
     755
Glu Gly Thr Ile Thr Lys Glu Gly Met Leu His Tyr Lys Ala Gly Thr
           775
Ser Tyr Leu Gly Lys Glu His Trp Lys Thr Cys Phe Val Val Leu Ser
              790 795
Asn Gly Ile Leu Tyr Gln Tyr Pro Asp Arg Thr Asp Val Ile Pro Leu
              805
                               810
Leu Ser Val Asn Met Gly Gly Glu Gln Cys Gly Gly Cys Arg Arg Ala
                                            830
                            825
         820
Asn Thr Thr Asp Arg Pro His Ala Phe Gln Val Ile Leu Ser Asp Pro
                                         845
     835
                        840
Pro Cys Leu Glu Leu Ser Ala Glu Ser Glu Ala Glu Met Ala Glu Trp
                                     860
  850 855
Met Gln His Leu Cys Gln Ala Val Ser Lys Gly Val Ile Pro Gln Gly
                                 875
                870
Val Ala Pro Ser Pro Cys Ile Pro Cys Cys Leu Val Leu Thr Asp Asp
              885
                              890
Arg Leu Phe Thr Cys His Glu Asp Cys Gln Thr Ser Phe Phe Arg Ser
                           905
                                     910
Leu Gly Thr Ala Lys Leu Gly Asp Ile Ser Ala Val Ser Thr Glu Pro
                        920
      915
Gly Lys Glu Tyr Cys Val Leu Glu Phe Ser Gln Asp Ser Gln Gln Leu
                    935 940
Leu Pro Pro Trp Val Ile Tyr Leu Ser Cys Thr Ser Glu Leu Asp Arg
                          955
                950
Leu Leu Ser Ala Leu Asn Ser Gly Trp Lys Thr Ile Tyr Gln Val Asp
                               970
             965
Leu Pro His Thr Ala Ile Gln Glu Ala Ser Asn Lys Lys Phe Glu
                           985
         980
Asp Ala Leu Ser Leu Ile His Ser Ala Trp Gln Arg Ser Asp Ser Leu
      995 1000
Cys Arg Gly Arg Ala Ser Arg Asp Pro Trp Cys *
                              1019
                    1015
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<210> 2299 <211> 788 <212> PRT <213> Homo sapiens

<400> 2299 Ala Arg Arg Ala Asp Thr Val Leu Leu Glu Ser Pro Ser Met Leu Gln Gly Leu Leu Pro Val Ser Leu Leu Ser Val Ala Val Ser Ala Ile 25 20 Lys Glu Leu Pro Gly Val Lys Lys Tyr Glu Val Val Tyr Pro Ile Arg 40 Leu His Pro Leu His Lys Arg Glu Ala Lys Glu Pro Glu Gln Glu 55 60 Gln Phe Glu Thr Glu Leu Lys Tyr Lys Met Thr Ile Asn Gly Lys Ile 70 75 Ala Val Leu Tyr Leu Lys Lys Asn Lys Asn Leu Leu Ala Pro Gly Tyr
85 90 95 90 Thr Glu Thr Tyr Tyr Asn Ser Thr Gly Lys Glu Ile Thr Thr Ser Pro 100 105 110 Gln Ile Met Asp Asp Cys Tyr Tyr Gln Gly His Ile Leu Asn Glu Lys 120 125 115 Val Ser Asp Ala Ser Ile Ser Thr Cys Arg Gly Leu Arg Gly Tyr Phe 135 140 Ser Gln Gly Asp Gln Arg Tyr Phe Ile Glu Pro Leu Ser Pro Ile His 150 155 Arg Asp Gly Gln Glu His Ala Leu Phe Lys Tyr Asn Pro Asp Glu Lys 170 165 Asn Tyr Asp Ser Thr Cys Gly Met Asp Gly Val Leu Trp Ala His Asp 185 180 Leu Gln Gln Asn Ile Ala Leu Pro Ala Thr Lys Leu Val Lys Leu Lys 200 205 Asp Arg Lys Val Gln Glu His Glu Lys Tyr Ile Glu Tyr Tyr Leu Val 215 220 Leu Asp Asn Gly Glu Phe Lys Arg Tyr Asn Glu Asn Gln Asp Glu Ile 230 235 Arg Lys Arg Val Phe Glu Met Ala Asn Tyr Val Asn Met Leu Tyr Lys 245 250 . 255 Lys Leu Asn Thr His Val Ala Leu Val Gly Met Glu Ile Trp Thr Asp 265 Lys Asp Lys Ile Lys Ile Thr Pro Asn Ala Ser Phe Thr Leu Glu Asn 280 285 Phe Ser Lys Trp Arg Gly Ser Val Leu Ser Arg Arg Lys Arg His Asp 300 295 Ile Ala Gln Leu Ile Thr Ala Thr Glu Leu Ala Gly Thr Thr Val Gly 315 310 Leu Ala Phe Met Ser Thr Met Cys Ser Pro Tyr Ser Val Gly Val Val 325 330 Gln Asp His Ser Asp Asn Leu Leu Arg Val Ala Gly Thr Met Ala His 340 345 350 Glu Met Gly His Asn Phe Gly Met Phe His Asp Asp Tyr Ser Cys Lys 360 - 365 Cys Pro Ser Thr Ile Cys Val Met Asp Lys Ala Leu Ser Phe Tyr Ile 375 380 Pro Thr Asp Phe Ser Ser Cys Ser Arg Leu Ser Tyr Asp Lys Phe Phe 395 390 Glu Asp Lys Leu Ser Asn Cys Leu Phe Asn Ala Pro Leu Pro Thr Asp 410 405 Ile Ile Ser Thr Pro Ile Cys Gly Asn Gln Leu Val Glu Met Gly Glu

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Asp Cys Asp Cys Gly Thr Ser Glu Glu Cys Thr Asn Ile Cys Cys Asp
                        440
Ala Lys Thr Cys Lys Ile Lys Ala Thr Phe Gln Cys Ala Leu Gly Glu
                                     460
  450
                    455
Cys Cys Glu Lys Cys Gln Phe Lys Lys Ala Gly Met Val Cys Arg Pro
                470
                                  475
465
Ala Lys Asp Glu Cys Asp Leu Pro Glu Met Cys Asn Gly Lys Ser Gly
                              490
            485
Asn Cys Pro Asp Asp Arg Phe Gln Val Asn Gly Phe Pro Cys His His
                                      510
                           505
          500
Gly Lys Gly His Cys Leu Met Gly Thr Cys Pro Thr Leu Gln Glu Gln
      515
                        520
                                       525
Cys Thr Glu Leu Trp Gly Pro Gly Thr Glu Val Ala Asp Lys Ser Cys
                   535
Tyr Asn Arg Asn Glu Gly Gly Ser Lys Tyr Gly Tyr Cys Arg Arg Val
                                 555
         550
Asp Asp Thr Leu Ile Pro Cys Lys Ala Asn Asp Thr Met Cys Gly Lys
             565
                      570
Leu Phe Cys Gln Gly Gly Ser Asp Asn Leu Pro Trp Lys Gly Arg Ile
                           585
                                            590
Val Thr Phe Leu Thr Cys Lys Thr Phe Asp Pro Glu Asp Thr Ser Gln
                        600
                                         605
Glu Ile Gly Met Val Ala Asn Gly Thr Lys Cys Gly Asp Asn Lys Val
                                   620
                  615
  610
Cys Ile Asn Ala Glu Cys Val Asp Ile Glu Lys Ala Tyr Lys Ser Thr
                           635
                630
Asn Cys Ser Ser Lys Cys Lys Gly His Ala Val Cys Asp His Glu Leu
                             650 655
              645
Gln Cys Gln Cys Glu Glu Gly Trp Ile Pro Pro Asp Cys Asp Asp Ser
         660
                           665
                                            670
Ser Val Val Phe His Phe Ser Ile Val Val Gly Val Leu Phe Pro Met
                                          685
                        680
      675
Ala Val Ile Phe Val Val Val Ala Met Val Ile Arg His Gln Ser Ser
            695
                                   700
Arg Glu Lys Gln Lys Lys Asp Gln Arg Pro Leu Ser Thr Thr Gly Thr
               710 715
Arg Pro His Lys Gln Lys Arg Lys Pro Gln Met Val Lys Ala Val Gln
                     730 735
              725
Pro Gln Glu Met Ser Gln Met Lys Pro His Val Tyr Asp Leu Pro Val
                                            750
                           745
Glu Gly Asn Glu Pro Pro Ala Ser Phe His Lys Asp Thr Asn Ala Leu
                                          765
      755
                      760
Pro Pro Thr Val Phe Lys Asp Asn Pro Met Ser Thr Pro Lys Asp Ser
 770
                 775
Asn Pro Lys Ala
       788
785
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<210> 2300 <211> 417 <212> PRT <213> Homo sapiens

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Arg Asp Glu Glu Pro Ser Gly Ala Ala Pro Glu Gly Gly Ala Thr Pro
             70
                                      75
Thr Ala Ala Pro Glu Thr Pro Ala Pro Pro Thr Arg Glu Thr Cys Tyr
               85
                                  90
Phe Leu Asn Ala Thr Ile Leu Phe Leu Phe Arg Glu Leu Arg Asp Thr
Ala Leu Thr Arg Arg Trp Val Thr Lys Lys Ile Lys Val Glu Phe Glu
                          120
Glu Leu Leu Gln Thr Lys Thr Ala Gly Arg Leu Leu Glu Gly Leu Ser
                      135
                                         140
Leu Arg Asp Val Phe Leu Gly Glu Thr Val Pro Phe Ile Lys Thr Ile
                   150
                                      155
Arg Leu Val Arg Pro Val Val Pro Ser Ala Thr Gly Glu Pro Asp Gly
                                 170
              165
Pro Glu Gly Glu Ala Leu Pro Ala Ala Cys Pro Glu Glu Leu Ala Phe
           180
                             185
Glu Ala Glu Val Glu Tyr Asn Gly Gly Phe His Leu Ala Ile Asp Val
                         200
Asp Leu Val Phe Gly Lys Ser Ala Tyr Leu Phe Val Lys Leu Ser Arg
                      215
                                         220
Val Val Gly Arg Leu Arg Leu Val Phe Thr Arg Val Pro Phe Thr His
                  230
                                     235
Trp Phe Phe Ser Phe Val Glu Asp Pro Leu Ile Asp Phe Glu Val Arg
               245
                                 250
Ser Gln Phe Glu Gly Arg Pro Met Pro Gln Leu Thr Ser Ile Ile Val
          260
                           265
Asn Gln Leu Lys Lys Ile Ile Lys Arg Lys His Thr Leu Pro Asn Tyr 275 280 285
Lys Ile Arg Phe Lys Pro Phe Phe Pro Tyr Gln Thr Leu Gln Gly Phe
Glu Glu Asp Glu Glu His Ile His Ile Gln Gln Trp Ala Leu Thr Glu
                   310
                                     315
Gly Arg Leu Lys Val Thr Leu Leu Glu Cys Ser Arg Leu Leu Ile Phe
              325
                                  330
Gly Ser Tyr Asp Arg Glu Ala Asn Val His Cys Thr Leu Glu Leu Ser
           340
                              345
                                                 350
Ser Ser Val Trp Glu Glu Lys Gln Arg Ser Ser Ile Lys Thr Gly Thr
                          360
                                             365
Ile Ser Leu Thr Ala Val Phe Met Gly Trp His Arg Val Ser Glu Ala
                     375
                                        380
Phe Pro Gly Leu Trp Tyr Lys Leu Leu Val Asp Leu Pro Phe Trp Gly
           . 390
                         395
                                                         400
Leu Glu Asp Gly Gly Pro Leu Leu Thr Val Pro Leu Arg Gln Cys Pro
               405
Gly
417
```

<210> 2301 <211> 257 <212> PRT <213> Homo sapiens

Ser Ser Glu Glu Lys Leu Ala Leu Leu Lys Gln Ile Gln Glu Ala Tyr 70 Gly Lys Cys Lys Glu Phe Gly Asp Asp Lys Val Gln Leu Ala Met Gln 90 8.5 Thr Tyr Glu Met Val Asp Lys His Ile Arg Arg Leu Asp Thr Asp Leu 100 105 Ala Arg Phe Glu Ala Asp Leu Lys Glu Lys Gln Ile Glu Ser Ser Asp 120 125 Tyr Asp Ser Ser Ser Lys Gly Lys Lys Lys Gly Arg Thr Gln Lys 140 130 135 Glu Lys Lys Ala Ala Arg Ala Arg Ser Lys Gly Lys Asn Ser Asp Glu 155 160 150 Glu Ala Pro Lys Thr Ala Gln Lys Lys Leu Lys Leu Val Arg Thr Ser 170 165 Pro Glu Tyr Gly Met Pro Ser Val Thr Phe Gly Ser Val His Pro Ser 185 180 Asp Val Leu Asp Met Pro Val Asp Pro Asn Glu Pro Thr Tyr Cys Leu 200 Cys His Gln Val Ser Tyr Gly Glu Met Ile Gly Cys Asp Asn Pro Asp 220 215 Cys Ser Ile Glu Trp Phe His Phe Ala Cys Val Gly Leu Thr Thr Lys 235 230 Pro Arg Gly Lys Trp Phe Cys Pro Arg Cys Ser Gln Glu Arg Lys Lys 257

<210> 2302 <211> 101 <212> PRT <213> Homo sapiens

<400> 2302 Pro Ser Val Ala Ser Leu Ala Arg Arg Phe Ser Gly Arg Ala Leu Trp 1 5 10 Pro Pro Ser His Ser Val Pro Gly Asn Arg Ala Leu Cys Pro Arg Leu 25 Leu His Gly Thr Thr Leu Pro Gly Gly Asn Gln Arg Glu Leu Ala Arg 35 40 Gln Lys Asn Met Lys Lys Gln Ser Asp Ser Val Lys Gly Lys Arg Arg 60 55 Asp Asp Gly Leu Ser Ala Ala Ala Arg Lys Gln Arg Asp Ser Thr Pro 75 70 Arg Asp Ser Glu Ile Met Gln Gln Lys Gln Lys Lys Ala Asn Glu Lys 90 Lys Glu Glu Pro Lys 100 101

<210> 2303 <211> 223 <212> PRT <213> Homo sapiens

Glu Thr Asn Ile Leu Lys Met Thr Thr Pro Asn Lys Thr Pro Pro Gly Ala Asp Pro Lys Gln Leu Glu Arg Thr Gly Thr Val Arg Glu Ile Gly 55 Ser Gln Ala Val Trp Ser Leu Ser Ser Cys Lys Pro Gly Phe Gly Val 65 . 70 75 Asp Gln Leu Arg Asp Asp Asn Leu Glu Thr Tyr Trp Gln Ser Asp Gly 90 85 Ser Gln Pro His Leu Val Asn Ile Gln Phe Arg Arg Lys Thr Thr Val 105 Lys Thr Leu Cys Ile Tyr Ala Asp Tyr Lys Ser Asp Glu Ser Tyr Thr 120 125 Pro Ser Lys Ile Ser Val Arg Val Gly Asn Asn Phe His Asn Leu Gln 135 140 Glu Ile Arg Gln Leu Glu Leu Val Glu Pro Ser Gly Trp Ile His Val 150 155 Pro Leu Thr Asp Asn His Lys Lys Pro Thr Arg Thr Phe Met Ile Gln 165 170 175 Ile Ala Val Leu Ala Asn His Gln Asn Gly Arg Asp Thr His Met Arg 185 Gln Ile Lys Ile Tyr Thr Pro Val Glu Glu Ser Ser Ile Gly Lys Phe 200 Pro Arg Cys Thr Thr Ile Asp Phe Met Met Tyr Arg Ser Ile Arg 215

<210> 2304 <211> 316 <212> PRT <213> Homo sapiens

<400> 2304 Pro Pro Leu Pro Pro Arg Ser Phe Pro Asn Leu Phe Ser Arg Pro Glu 10 Pro Leu Pro Glu Pro Gly Arg Arg Gly Cys Asn Arg Ser Arg Glu Pro 25 20 Ala Ala Arg Ala Pro Ser Pro Pro Pro Pro Phe Glu Gly Ala Pro Gly 40 45 Arg Ala Met Val Lys Val Thr Phe Asn Ser Ala Leu Ala Gln Lys Glu 60 Ala Lys Lys Asp Glu Pro Lys Ser Gly Glu Glu Ala Leu Ile Ile Pro 70 75 Pro Asp Ala Val Ala Val Asp Cys Lys Asp Pro Asp Asp Val Val Pro 90 85 Val Gly Gln Arg Arg Ala Trp Cys Trp Cys Met Cys Phe Gly Leu Ala 100 105 110 Phe Met Leu Ala Gly Val Ile Leu Gly Gly Ala Tyr Leu Tyr Lys Tyr 120 Phe Ala Leu Gln Pro Asp Asp Val Tyr Tyr Cys Gly Ile Lys Tyr Ile 130 135 140 Lys Asp Asp Val Ile Leu Asn Glu Pro Ser Ala Asp Ala Pro Ala Ala 145 150 155 Leu Tyr Gln Thr Ile Glu Glu Asn Ile Lys Ile Phe Glu Glu Glu Glu 165 170 Val Glu Phe Ile Ser Val Pro Val Pro Glu Phe Ala Asp Ser Asp Pro 180 185 Ala Asn Ile Val His Asp Phe Asn Lys Lys Leu Thr Ala Tyr Leu Asp 200 205 Leu Asn Leu Asp Lys Cys Tyr Val Ile Pro Leu Asn Thr Ser Ile Val 215 220 Met Pro Pro Arg Asn Leu Leu Glu Leu Leu Ile Asn Ile Lys Ala Gly 235 230

<210> 2305 <211> 378 <212> PRT <213> Homo sapiens

<400> 2305 Val Glu Ser Arg Ser Ala Trp His Glu Gly Glu Asp Gln Ile Asp Arg 10 Leu Asp Phe Ile Arg Asn Gln Met Asn Leu Leu Thr Leu Asp Val Lys 25 20 Lys Lys Ile Lys Glu Val Thr Glu Glu Val Ala Asn Lys Val Ser Cys 40 35 Ala Met Thr Asp Glu Ile Cys Arg Leu Ser Val Leu Val Asp Glu Phe 55 60 Cys Ser Glu Phe His Pro Asn Pro Asp Val Leu Lys Ile Tyr Lys Ser 70 75 Glu Leu Asn Lys His Ile Glu Asp Gly Met Gly Arg Asn Leu Ala Asp 90 85 Arg Cys Thr Asp Glu Val Asn Ala Leu Val Leu Gln Thr Gln Glu
100 105 110 Ile Ile Glu Asn Leu Lys Pro Leu Leu Pro Ala Gly Ile Gln Asp Lys 120 115 Leu His Thr Leu Ile Pro Cys Lys Lys Phe Asp Leu Ser Tyr Asn Leu 140 135 Asn Tyr His Lys Leu Cys Ser Asp Phe Gln Glu Asp Ile Val Phe Arg 150 155 Phe Ser Leu Gly Trp Ser Ser Leu Val His Arg Phe Leu Gly Pro Arg 175 170 165 Asn Ala Gln Arg Val Leu Leu Gly Leu Ser Glu Pro Ile Phe Gln Leu 180 185 190 Pro Arg Ser Leu Ala Ser Thr Pro Thr Ala Pro Thr Thr Pro Ala Thr 200 195 Pro Asp Asn Ala Ser Gln Glu Glu Leu Met Ile Thr Leu Val Thr Gly 215 220 Leu Ala Ser Val Thr Ser Arg Thr Ser Met Gly Ile Ile Ile Val Gly 230 235 Gly Val Ile Trp Lys Thr Ile Gly Trp Lys Leu Leu Ser Val Ser Leu 250 255 245 Thr Met Tyr Gly Ala Leu Tyr Leu Tyr Glu Arg Leu Ser Trp Thr Thr 260 265 270 His Ala Lys Glu Arg Ala Phe Lys Gln Gln Phe Val Asn Tyr Ala Thr 275 280 285 Glu Lys Leu Arg Met Ile Val Ser Ser Thr Ser Ala Asn Cys Ser His 300 295 290 Gln Val Lys Gln Gln Ile Ala Thr Thr Phe Ala Arg Leu Cys Gln Gln 315 310 Val Asp Ile Thr Gln Lys Gln Leu Glu Glu Glu Ile Ala Arg Leu Pro 330 325 Lys Glu Ile Asp Gln Leu Glu Lys Ile Gln Asn Asn Ser Lys Leu Leu 340 345

Arg Asn Lys Ala Val Gln Leu Glu Asn Glu Leu Glu Asn Phe Thr Lys 355 360 365

Gln Phe Leu Pro Ser Ser Asn Glu Glu Ser 370 375 378

<210> 2306 <211> 351 <212> PRT <213> Homo sapiens

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<400> 2306

Ala Ser Gly Ser Pro Ala Pro Ser Ser Ser Ala Met Ala Ala Ala 10 Cys Gly Pro Gly Ala Ala Gly Tyr Cys Leu Leu Gly Leu His Leu
20 25 30 20 25 Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly Trp Asn Asp Pro Asp Arg 40 Met Leu Leu Arg Asp Val Lys Ala Leu Thr Leu His Tyr Asp Arg Tyr 55 Thr Thr Ser Arg Arg Leu Asp Pro Ile Pro Gln Leu Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser Tyr Thr Pro Lys Val Ile Gln Cys Gln 85 90 Asn Lys Gly Trp Asp Gly Tyr Asp Val Gln Trp Glu Cys Lys Thr Asp 100 105 110 Leu Asp Ile Ala Tyr Lys Phe Gly Lys Thr Val Val Ser Cys Glu Gly
115 120 125 Tyr Glu Ser Ser Glu Asp Gln Tyr Val Leu Arg Gly Ser Cys Gly Leu 130 135 140 Glu Tyr Asn Leu Asp Tyr Thr Glu Leu Gly Leu Gln Lys Leu Lys Glu 155 150 Ser Gly Lys Gln His Gly Phe Ala Ser Phe Ser Asp Tyr Tyr Lys 165 170 175 Trp Ser Ser Ala Asp Ser Cys Asn Met Ser Gly Leu Ile Thr Ile Val 185 190 Val Leu Leu Gly Ile Ala Phe Val Val Tyr Lys Leu Phe Leu Ser Asp 205 195 200 Gly Gln Tyr Ser Pro Pro Pro Tyr Ser Glu Tyr Pro Pro Phe Ser His 210 215 220 Arg Tyr Gln Arg Phe Thr Asn Ser Ala Gly Pro Pro Pro Pro Gly Phe 230 235 Lys Ser Glu Phe Thr Gly Pro Gln Asn Thr Gly His Gly Ala Thr Ser 245 250 Gly Phe Gly Ser Ala Phe Thr Gly Gln Gln Gly Tyr Glu Asn Ser Gly 260 265 270 Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly Gly Ile Leu Gly Tyr Leu 275 280 285 Phe Gly Ser Asn Arg Ala Ala Thr Pro Phe Ser Asp Ser Trp Tyr Tyr 290 295 300 Pro Ser Tyr Pro Pro Ser Tyr Pro Gly Thr Trp Asn Arg Ala Tyr Ser 305 310 315 320 Pro Leu His Gly Gly Ser Gly Ser Tyr Ser Val Cys Ser Asn Ser Asp 325 330 Thr Lys Thr Arg Thr Ala Ser Gly Tyr Gly Gly Thr Arg Arg Arg

<210> 2307 <211> 321 <212> PRT

## <213> Homo sapiens

<400> 2307 Thr His Val Val Met Thr Gly Met Cys Tyr Ala Pro His Gln Val Leu 10 Ser Tyr Ile Asn Gly Val Thr Thr Ser Lys Pro Gly Val Ser Leu Val 25 20 Tyr Ser Met Pro Ser Arg Asn Leu Ser Leu Arg Leu Glu Gly Leu Gln 45 40 35 Glu Lys Asp Ser Gly Pro Tyr Ser Cys Ser Val Asn Val Gln Asp Lys 55 60 Gln Gly Lys Ser Arg Gly His Ser Ile Lys Thr Leu Glu Leu Asn Val 70 Leu Val Pro Pro Ala Pro Pro Ser Cys Arg Leu Gln Gly Val Pro His 85 90 Val Gly Ala Asn Val Thr Leu Ser Cys Gln Ser Pro Arg Ser Lys Pro 105 110 100 Ala Val Gln Tyr Gln Trp Asp Arg Gln Leu Pro Ser Phe Gln Thr Phe 125 120 Phe Ala Pro Ala Leu Asp Val Ile Arg Gly Ser Leu Ser Leu Thr Asn 135 140 Leu Ser Ser Ser Met Ala Gly Val Tyr Val Cys Lys Ala His Asn Glu 155 150 Val Gly Thr Ala Gln Cys Asn Val Thr Leu Glu Val Ser Thr Gly Pro 170 175 165 Gly Ala Ala Val Val Ala Gly Ala Val Val Gly Thr Leu Val Gly Leu 185 190 180 Gly Leu Leu Ala Gly Leu Val Leu Leu Tyr His Arg Arg Gly Lys Ala 200 205 Leu Glu Glu Pro Ala Asn Asp Ile Lys Glu Asp Ala Ile Ala Pro Arg 220 215 Thr Leu Pro Trp Pro Lys Ser Ser Asp Thr Ile Ser Lys Asn Gly Thr 235 230 Leu Ser Ser Val Thr Ser Ala Arg Ala Leu Arg Pro Pro His Gly Pro 250 255 245 Pro Arg Pro Gly Ala Leu Thr Pro Thr Pro Ser Leu Ser Ser Gln Ala 260 265 270 Leu Pro Ser Pro Arg Leu Pro Thr Thr Asp Gly Ala His Pro Gln Pro 285 280 Ile Ser Pro Ile Pro Gly Gly Val Ser Ser Ser Gly Leu Ser Arg Met 295 300 Gly Ala Val Pro Val Met Val Pro Ala Gln Ser Gln Ala Gly Ser Leu 315 305 310 Val 321

<210> 2308 <211> 383 <212> PRT <213> Homo sapiens

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Pro Leu Asn Ala Thr Leu Val Ile Thr Phe Glu Ile Thr Phe Arg Ser
Lys Asn Ile Thr Ile Leu Glu Leu Pro Asp Glu Val Val Pro Pro
                              90
              85
Gly Val Thr Asn Ser Ser Phe Gln Val Thr Ser Gln Asn Val Gly Gln
          100
                          105
Leu Thr Val Tyr Leu His Gly Asn His Ser Asn Gln Thr Gly Pro Arg
                        120
Ile Arg Phe Leu Val Ile Arg Ser Ser Ala Ile Ser Ile Ile Asn Gln
                  135
                                      140
Val Ile Gly Trp Ile Tyr Phe Val Ala Trp Ser Ile Ser Phe Tyr Pro
                 150
                                   155
Gln Val Ile Met Asn Trp Arg Arg Lys Ser Val Ile Gly Leu Ser Phe
             165
                               170
Asp Phe Val Ala Leu Asn Leu Thr Gly Phe Val Ala Tyr Ser Val Phe
         180 185
                                             190
Asn Ile Gly Leu Leu Trp Val Pro Tyr Ile Lys Glu Gln Phe Leu Leu
                        200
Lys Tyr Pro Asn Gly Val Asn Pro Val Asn Ser Asn Asp Val Phe Phe
                     215
                          •
                                      220
Ser Leu His Ala Val Val Leu Thr Leu Ile Ile Ile Val Gln Cys Cys
                                   235
                 230
Leu Tyr Glu Arg Gly Gly Gln Arg Val Ser Trp Pro Ala Ile Gly Phe
              245
                                250
Leu Val Leu Ala Trp Leu Phe Ala Phe Val Thr Met Ile Val Ala Ala
         260
                           265
Val Gly Val Ile Thr Trp Leu Gln Phe Leu Phe Cys Phe Ser Tyr Ile
                        280
      275
Lys Leu Ala Val Thr Leu Val Lys Tyr Phe Pro Gln Ala Tyr Met Asn
  290 295 300
Phe Tyr Tyr Lys Ser Thr Glu Gly Trp Ser Ile Gly Asn Val Leu Leu
                                   315
Asp Phe Thr Gly Gly Ser Phe Ser Leu Leu Gln Met Phe Leu Gln Ser
              325
                               330
Tyr Asn Asn Asp Gln Trp Thr Leu Ile Phe Gly Asp Pro Thr Lys Phe
         340
                            345
                                            . 350
Gly Leu Gly Val Phe Ser Ile Val Phe Asp Val Val Phe Phe Ile Gln
                                   365
                        360
His Phe Cys Leu Tyr Arg Lys Arg Pro Gly Tyr Asp Gln Leu Asn
                     375
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<210> 2309 <211> 274 <212> PRT <213> Homo sapiens

<400> 2309

Gly Glu Arg Ala Gly Arg Arg Gly Arg Leu Gly Val Trp Ala Gln 10 Pro Gln Pro Leu Leu Pro Arg Pro Val Gly Ser Arg Arg Glu Met Gln 20 25 Pro Pro Gly Pro Pro Pro Ala Tyr Ala Pro Thr Asn Gly Asp Phe Thr 40 Phe Val Ser Ser Ala Asp Ala Glu Asp Leu Ser Gly Ser Ile Ala Ser Pro Asp Val Lys Leu Asn Leu Gly Gly Asp Phe Ile Lys Glu Ser Thr 70 75 Ala Thr Thr Phe Leu Arg Gln Arg Gly Tyr Gly Trp Leu Leu Glu Val 85 90 Glu Asp Asp Pro Glu Asp Asn Lys Pro Leu Leu Glu Glu Leu Asp 100 105

Ile Asp Leu Lys Asp Ile Tyr Tyr Lys Ile Arg Cys Val Leu Met Pro 120 Met Pro Ser Leu Gly Phe Asn Arg Gln Val Val Arg Asp Asn Pro Asp 140 135 Phe Trp Gly Pro Leu Ala Val Val Leu Phe Phe Ser Met Ile Ser Leu 155 150 Tyr Gly Gln Phe Arg Val Val Ser Trp Ile Ile Thr Ile Trp Ile Phe 165 170 Gly Ser Leu Thr Ile Phe Leu Leu Ala Arg Val Leu Gly Gly Glu Val 190 180 185 Ala Tyr Gly Gln Val Leu Gly Val Ile Gly Tyr Ser Leu Leu Pro Leu 195 200 205 Ile Val Ile Ala Pro Val Leu Leu Val Val Gly Ser Phe Glu Val Val 220 210 215 Ser Thr Leu Ile Lys Leu Phe Gly Val Phe Trp Ala Ala Tyr Ser Ala 225 230 235 240 Ala Ser Leu Leu Val Gly Glu Glu Phe Lys Thr Lys Lys Pro Leu Leu 250 255 245 Ile Tyr Pro Ile Phe Leu Leu Tyr Ile Tyr Phe Leu Ser Leu Tyr Thr 265 Gly Val 274

<210> 2310 <211> 973 <212> PRT <213> Homo sapiens

<400> 2310 Met Thr Cys Phe Lys Gly Gln Lys Gly Glu Gln Arg Ser His Ala Phe 5 Glu Ala Asn Lys Asp His Lys Ala Lys Val Pro Ser Pro Asn Leu Tyr
20 25 30 Ser Gln Leu Asn Ala Leu Gln Phe Thr Val Asp Glu Arg Ser Ile Leu 35 40 Trp Leu Asn Gln Phe Leu Leu Asp Leu Lys Gln Ser Leu Asn Gln Phe 60 55 Met Ala Val Tyr Lys Leu Asn Asp Asn Ser Lys Ser Asp Glu His Val 75 70 Asp Val Arg Val Asp Gly Leu Met Leu Lys Phe Val Ile Pro Ser Glu 85 90 Val Lys Ser Glu Cys His Gln Asp Gln Pro Arg Ala Ile Ser Ile Gln . 100 105 Ser Ser Glu Met Ile Ala Thr Asn Thr Arg His Cys Pro Asn Cys Arg 125 115 120 His Ser Asp Leu Glu Ala Leu Phe Gln Asp Phe Lys Asp Cys Asp Phe 135 140 Phe Ser Lys Thr Tyr Thr Ser Phe Pro Lys Ser Cys Asp Asn Phe Asn 155 150 Leu Leu His Pro Ile Phe Gln Arg His Ala His Glu Gln Asp Thr Lys 165 170 Met His Glu Ile Tyr Lys Gly Asn Ile Thr Pro Gln Leu Asn Lys Asn 185 180 Thr Leu Lys Thr Ser Ala Ala Thr Asp Val Trp Ala Val Tyr Phe Ser 195 200 205 Gln Phe Trp Ile Asp Tyr Glu Gly Met Lys Ser Gly Lys Gly Arg Pro 220 215 Ile Ser Phe Val Asp Ser Phe Pro Leu Ser Ile Trp Ile Cys Gln Pro 225 230 235 Thr Arg Tyr Ala Glu Ser Gln Lys Glu Pro Gln Thr Cys Asn Gln Val 250 245

Ser Leu Asn Thr Ser Gln Ser Glu Ser Ser Asp Leu Ala Gly Arg Leu 260 265 270 Lys Arg Lys Leu Leu Lys Glu Tyr Tyr Ser Thr Glu Ser Glu Pro Leu Thr Asn Gly Gly Gln Lys Pro Ser Ser Ser Asp Thr Phe Phe Arg Phe Ser Pro Ser Ser Ser Glu Ala Asp Ile His Leu Leu Val His Val His Lys His Val Ser Met Gln Ile Asn His Tyr Gln Tyr Leu Leu Leu Leu Phe Leu His Glu Ser Leu Ile Leu Leu Ser Glu Asn Leu Arg Lys Asp Val Glu Ala Val Thr Gly Ser Pro Ala Ser Gln Thr Ser Ile Cys Ile Gly Ile Leu Leu Arg Ser Ala Glu Leu Ala Leu Leu His Pro Val Asp Gln Ala Asn Thr Leu Lys Ser Pro Val Ser Glu Ser Val Ser Pro Val Val Pro Asp Tyr Leu Pro Thr Glu Asn Gly Asp Phe Leu Ser Ser Lys Arg Lys Gln Ile Ser Arg Asp Ile Asn Arg Ile Arg Ser Val Thr Val Asn His Met Ser Asp Asn Arg Ser Met Ser Val Asp Leu Ser His Ile Pro Leu Lys Asp Pro Leu Leu Phe Lys Ser Ala Ser Asp Thr Asn Leu Gln Lys Gly Ile Ser Phe Met Asp Tyr Leu Ser Asp Lys His Leu Gly Lys Ile Ser Glu Asp Glu Ser Ser Gly Leu Val Tyr Lys Ser Gly Ser Gly Glu Ile Gly Ser Glu Thr Ser Asp Lys Lys Asp Ser Phe Tyr Thr Asp Ser Ser Ser Val Leu Asn Tyr Arg Glu Asp Ser Asn Ile Leu Ser Phe Asp Ser Asp Gly Asn Gln Asn Ile Leu Ser Ser Thr Leu Thr Ser Lys Gly Asn Glu Thr Ile Glu Ser Ile Phe Lys Ala Glu Asp Leu Leu Pro Glu Ala Ala Ser Leu Ser Glu Asn Leu Asp Ile Ser Lys 570 . . Glu Glu Thr Pro Pro Val Arg Thr Leu Lys Ser Gln Ser Ser Leu Ser Gly Lys Pro Lys Glu Arg Cys Pro Pro Asn Leu Ala Pro Leu Cys Val Ser Tyr Lys Asn Met Lys Arg Ser Ser Ser Gln Met Ser Leu Asp Thr Ile Ser Leu Asp Ser Met Ile Leu Glu Glu Gln Leu Leu Glu Ser Asp Gly Ser Asp Ser His Met Phe Leu Glu Lys Gly Asn Lys Lys Asn Ser Thr Thr Asn Tyr Arg Gly Thr Ala Glu Ser Val Asn Ala Gly Ala Asn Leu Gln Asn Tyr Gly Glu Thr Ser Pro Asp Ala Ile Ser Thr Asn Ser Glu Gly Ala Gln Glu Asn His Asp Asp Leu Met Ser Val Val Phe Lys Ile Thr Gly Val Asn Gly Glu Ile Asp Ile Arg Gly Glu Asp Thr Glu Ile Cys Leu Gln Val Asn Gln Val Thr Pro Asp Gln Leu Gly Asn Ile Ser Leu Arg His Tyr Leu Cys Asn Arg Pro Val Gly Ser Asp Gln Lys Ala Val Ile His Ser Lys Ser Ser Pro Glu Ile Ser Leu Arg Phe

Glu Ser Gly Pro Gly Ala Val Ile His Ser Leu Leu Ala Glu Lys Asn 775 Gly Phe Leu Gln Cys His Ile Glu Asn Phe Ser Thr Glu Phe Leu Thr 795 790 Ser Ser Leu Met Asn Ile Gln His Phe Leu Glu Asp Glu Thr Val Ala 805 810 Thr Val Met Pro Met Lys Ile Gln Val Ser Asn Thr Lys Ile Asn Leu 825 B30 820 Lys Asp Asp Ser Pro Arg Ser Ser Thr Val Ser Leu Glu Pro Ala Pro 840 835 Val Thr Val His Ile Asp His Leu Val Val Glu Arg Ser Asp Asp Gly 860 855 Ser Phe His Ile Arg Asp Ser His Met Leu Asn Thr Gly Asn Asp Leu 865 870 875 880 Lys Glu Asn Val Lys Ser Asp Ser Val Leu Leu Thr Ser Gly Lys Tyr 890 895 885 Asp Leu Lys Lys Gln Arg Ser Val Thr Gln Ala Thr Gln Thr Ser Pro 900 905 Gly Val Pro Trp Pro Ser Gln Ser Ala Asn Phe Pro Glu Phe Ser Phe 920 925 Asp Phe Thr Arg Glu Gln Leu Met Glu Glu Asn Glu Ser Leu Lys Gln 935 940 Glu Leu Ala Lys Ala Lys Met Ala Leu Ala Glu Ala His Leu Glu Lys 950 955 Asp Ala Leu Leu His His Ile Lys Lys Met Thr Val Glu 970 965

<210> 2311 <211> 253 <212> PRT <213> Homo sapiens

<400> 2311 Thr Ala Ala Met Ser Ile Phe Thr Pro Thr Asn Gln Ile Arg Leu Thr 10 1 5 Asn Val Ala Val Val Arg Met Lys Arg Ala Gly Lys Arg Phe Glu Ile 25 20 Ala Cys Tyr Lys Asn Lys Val Val Gly Trp Arg Ser Gly Val Glu Lys 40 Asp Leu Asp Glu Val Leu Gln Thr His Ser Val Phe Val Asn Val Ser 55 60 Lys Gly Gln Val Ala Lys Lys Glu Asp Leu Ile Ser Ala Phe Gly Thr 75 70 Asp Asp Gln Thr Glu Ile Cys Lys Gln Ile Leu Thr Lys Gly Glu Val 85 90 Gln Val Ser Asp Lys Glu Arg His Thr Gln Leu Glu Gln Met Phe Arg 105 110 Asp Ile Ala Thr Ile Val Ala Asp Lys Cys Val Asn Pro Glu Thr Lys 125 115 120 Arg Pro Tyr Thr Val Ile Leu Ile Glu Arg Ala Met Lys Asp Ile His 140 135 Tyr Ser Val Lys Thr Asn Lys Ser Thr Lys Gln Gln Ala Leu Glu Val 150 155 Ile Lys Gln Leu Lys Glu Lys Met Lys Ile Glu Arg Ala His Met Arg 170 . 175 165 Leu Arg Phe Ile Leu Pro Val Asn Glu Gly Lys Lys Leu Lys Glu Lys 190 185 Leu Lys Pro Leu Ile Lys Val Ile Glu Ser Glu Asp Tyr Gly Gln Gln 195 200 Leu Glu Ile Val Cys Leu Ile Asp Pro Gly Cys Phe Arg Glu Ile Asp 220 210 215

Glu Leu Ile Lys Lys Glu Thr Lys Gly Lys Gly Ser Leu Glu Val Leu 225 230 240
Asn Leu Lys Asp Val Glu Glu Gly Asp Glu Lys Phe Glu 253 253

<210> 2312 <211> 100 <212> PRT

<213> Homo sapiens

<400> 2312 Asn Ile Ser Asn Lys Ala Glu Val Ser Ser His Pro Ser Val Ile Ser His Ser Met Asp Ser Phe Gly Gln Pro Arg Pro Glu Asp Asn Gln Ser 20 25 Val Leu Arg Arg Met Gln Lys Lys Tyr Trp Lys Thr Lys Gln Val Phe 35 40 45 Ile Lys Ala Thr Gly Lys Lys Glu Asp Glu His Leu Val Ala Ser Asp Ala Glu Leu Asp Ala Lys Leu Glu Val Phe His Ser Val Gln Glu Thr 70 75 Cys Thr Glu Leu Leu Lys Ile Ile Glu Lys Tyr Gln Leu Arg Leu Asn 90 Gly Met Lys Ser 100

<210> 2313 <211> 734 <212> PRT <213> Homo sapiens

<400> 2313 Ala Glu Gly Cys Ala Glu Arg Arg Gly Thr Glu Pro Val Val Glu Leu 10 Ser Met Ser Trp Glu Ser Gly Ala Gly Pro Gly Leu Gly Ser Gln Gly 20 25 Met Asp Leu Val Trp Ser Ala Trp Tyr Gly Lys Cys Val Lys Gly Lys 40 Gly Ser Leu Pro Leu Ser Ala His Gly Ile Val Val Ala Trp Leu Ser 55 60 Arg Ala Glu Trp Asp Gln Val Thr Val Tyr Leu Phe Cys Asp Asp His 70 75 Lys Leu Gln Arg Tyr Ala Leu Asn Arg Ile Thr Val Trp Arg Ser Arg 85 90 95 Ser Gly Asn Glu Leu Pro Leu Ala Val Ala Ser Thr Ala Asp Leu Ile 100 105 110 Arg Cys Lys Leu Leu Asp Val Thr Gly Gly Leu Gly Thr Asp Glu Leu 120 Arg Leu Leu Tyr Gly Met Ala Leu Val Arg Phe Val Asn Leu Ile Ser 135 140 Glu Arg Lys Thr Lys Phe Ala Lys Val Pro Leu Lys Cys Leu Ala Gln 155 150 Glu Val Asn Ile Pro Asp Trp Ile Val Asp Leu Arg His Glu Leu Thr 170 175 165 His Lys Lys Met Pro His Ile Asn Asp Cys Arg Arg Gly Cys Tyr Phe 180 185 190 Val Leu Asp Trp Leu Gln Lys Thr Tyr Trp Cys Arg Gln Leu Glu Asn

200

205

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Ser Leu Arg Glu Thr Trp Glu Leu Glu Glu Phe Arg Glu Gly Ile Glu
                                        220
                      215
Glu Glu Asp Gln Glu Glu Asp Lys Asn Ile Val Val Asp Asp Ile Thr
                                    235
                 230
Glu Gln Lys Pro Glu Pro Gln Asp Asp Gly Lys Ser Thr Glu Ser Asp
                                250
            245
Val Lys Ala Asp Gly Asp Ser Lys Gly Ser Glu Glu Val Asp Ser His
                   265
                                               270
          260
Cys Lys Lys Ala Leu Ser His Lys Glu Leu Tyr Glu Arg Ala Arg Glu
                                            285
                         280
Leu Leu Val Ser Tyr Glu Glu Glu Gln Phe Thr Val Leu Glu Lys Phe
                      295
                                     300
Arg Tyr Leu Pro Lys Ala Ile Lys Ala Trp Asn Asn Pro Ser Pro Arg
                                    315
       310
Val Glu Cys Val Leu Ala Glu Leu Lys Gly Val Thr Cys Glu Asn Arg
                                330
             325
Glu Ala Val Leu Asp Ala Phe Leu Asp Asp Gly Phe Leu Val Pro Thr
                            345
Phe Glu Gln Leu Ala Ala Leu Gln Ile Glu Tyr Glu Glu Asn Val Asp
                         360
                                           365
      355
Leu Asn Asp Val Leu Val Pro Lys Pro Phe Ser Gln Phe Trp Gln Pro
                      375
                                        380
Leu Leu Arg Gly Leu His Ser Gln Asn Phe Thr Gln Ala Leu Leu Glu
                                    395
               390
Arg Met Leu Ser Glu Leu Pro Ala Leu Gly Ile Ser Gly Ile Arg Pro
                              410
              405
Thr Tyr Ile Leu Arg Trp Thr Val Glu Leu Ile Val Ala Asn Thr Lys
                            425
Thr Gly Arg Asn Ala Arg Arg Phe Ser Ala Gly Gln Trp Glu Ala Arg
                                           445
       435
                         440
Arg Gly Trp Arg Leu Phe Asn Cys Ser Ala Ser Leu Asp Trp Pro Arg
                                        460
                      455
Met Val Glu Ser Cys Leu Gly Ser Pro Cys Trp Ala Ser Pro Gln Leu
                                     475
                 470
Leu Arg Ile Ile Phe Lys Ala Met Gly Gln Gly Leu Pro Asp Glu Glu
              485
                                 490
Gln Glu Lys Leu Leu Arg Ile Cys Ser Ile Tyr Thr Gln Ser Gly Glu
                             505
           500
Asn Ser Leu Val Gln Glu Gly Ser Glu Ala Ser Pro Ile Gly Lys Ser
                                           525
                         520
Pro Tyr Thr Leu Asp Ser Leu Tyr Trp Ser Val Lys Pro Ala Ser Ser
                      535
                                        540
Ser Phe Gly Ser Glu Ala Lys Ala Gln Gln Gln Glu Glu Gln Gly Ser
                550
                                     555
Val Asn Asp Val Lys Glu Glu Glu Lys Glu Glu Lys Glu Val Leu Pro
                                  570
              565
Asp Gln Val Glu Glu Glu Glu Asn Asp Asp Gln Glu Glu Glu Glu
            580
                             585
Glu Asp Glu Asp Asp Glu Asp Asp Glu Glu Glu Asp Arg Met Glu Val
                          600
                                            605
Gly Pro Phe Ser Thr Gly Gln Glu Ser Pro Thr Ala Glu Asn Ala Arg
                                         620
                      615
Leu Leu Ala Gln Lys Arg Gly Ala Leu Gln Gly Ser Ala Trp Gln Val
                                     635
                 630
Ser Ser Glu Asp Val Arg Trp Asp Thr Phe Pro Leu Gly Arg Met Pro
                         650
               645
Gly Gln Thr Glu Asp Pro Ala Glu Leu Met Leu Glu Asn Tyr Asp Thr
                              665
            660
Met Tyr Leu Leu Asp Gln Pro Val Leu Glu Gln Arg Leu Glu Pro Ser
                                            685
       675
                         680
Thr Cys Lys Thr Asp Thr Leu Gly Leu Ser Cys Gly Val Gly Ser Gly
                                         700
            695
Asn Cys Ser Asn Ser Ser Ser Ser Asn Phe Glu Gly Leu Leu Trp Ser
                   710
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Gln Gly Gln Leu His Gly Leu Lys Thr Gly Leu Gln Leu Phe
725 730 734

<210> 2314 <211> 462 <212> PRT <213> Homo sapiens

<400> 2314

Glu Pro Arg Arg Asn Phe Arg Asp Asp Ser Thr Arg Pro Arg Thr Arg Gly Arg Thr Arg Gly Arg Arg Arg Arg Ala Cys Arg Ser Ala Glu Gly Thr Gly Leu Arg Ser Leu Leu Leu Pro Pro Arg Leu Gln Leu Pro Ala Gly Pro Phe Ser Arg Cys Arg Trp Asp Pro Val Ser Ser Pro Arg Pro Ser Thr Met Pro Pro Lys Lys Gly Gly Asp Gly Ile Lys Pro Pro Pro Ile Ile Gly Arg Phe Gly Thr Ser Leu Lys Ile Gly Ile Val Gly Leu Pro Asn Val Gly Lys Ser Thr Phe Phe Asn Val Leu Thr Asn Ser Gln Ala Ser Ala Glu Asn Phe Pro Phe Cys Thr Ile Asp Pro Asn Glu Ser Arg Val Pro Val Pro Asp Glu Arg Phe Asp Phe Leu Cys Gln Tyr His Lys Pro Ala Ser Lys Ile Pro Ala Phe Leu Asn Val Val Asp Ile Ala Gly Leu Val Lys Gly Ala His Asn Gly Gln Gly Leu Gly Asn Ala Phe Leu Ser His Ile Ser Ala Cys Asp Gly Ile Phe His Leu Thr Arg Ala Phe Glu Asp Asp Asp Ile Thr His Val Glu Gly Ser Val Asp Pro Ile Arg Asp Ile Glu Ile Ile His Glu Glu Leu Gln Leu Lys Asp Glu Glu Met Ile Gly Pro Ile Ile Asp Lys Leu Glu Lys Val Ala Val Arg Gly Gly Asp Lys Leu Lys Pro Glu Tyr Asp Ile Met Cys Lys Val Lys Ser Trp Val Ile Asp Gln Lys Lys Pro Val Arg Phe Tyr His Asp Trp Asn Asp Lys Glu Ile Glu Val Leu Asn Lys His Leu Phe Leu Thr Ser Lys Pro Met Val Tyr Leu Val Asn Leu Ser Glu Lys Asp Tyr Ile Arg 290 295 Lys Lys Asn Lys Trp Leu Ile Lys Ile Lys Glu Trp Val Asp Lys Tyr Asp Pro Gly Ala Leu Val Ile Pro Phe Ser Gly Ala Leu Glu Leu Lys 33D Leu Gln Glu Leu Ser Ala Glu Glu Arg Gln Lys Tyr Leu Glu Ala Asn Met Thr Gln Ser Ala Leu Pro Lys Ile Ile Lys Ala Gly Phe Ala Ala Leu Gln Leu Glu Tyr Phe Phe Thr Ala Gly Pro Asp Glu Val Arg Ala Trp Thr Ile Arg Lys Gly Thr Lys Ala Pro Gln Ala Ala Gly Lys Ile His Thr Asp Phe Glu Lys Gly Phe Ile Met Ala Glu Val Met Lys Tyr 

<210> 2315 <211> 280 <212> PRT <213> Homo sapiens

<400> 2315 Arg Ser Phe Ser Leu Ser Phe Ser Leu Leu Ser Pro Ser Glu Met Met 10 1 5 Ala Leu Gly Ala Ala Gly Ala Thr Arg Val Phe Val Ala Met Val Ala 25 20 Ala Ala Leu Gly Gly His Pro Leu Leu Gly Val Ser Ala Thr Leu Asn 45 35 40 Ser Val Leu Asn Ser Asn Ala Ile Lys Asn Leu Pro Pro Pro Leu Gly 60 55 Gly Ala Ala Gly His Pro Gly Ser Ala Val Ser Ala Ala Pro Gly Ile 65 70 75 80 Leu Tyr Pro Gly Gly Asn Lys Tyr Gln Thr Ile Asp Asn Tyr Gln Pro 90 95 85 Tyr Pro Cys Ala Glu Asp Glu Glu Cys Gly Thr Asp Glu Tyr Cys Ala 100 105 Ser Pro Thr Arg Gly Gly Asp Ala Gly Val Gln Ile Cys Leu Ala Cys 120 125 115 Arg Lys Arg Arg Lys Arg Cys Met Arg His Ala Met Cys Cys Pro Gly 140 135 Asn Tyr Cys Lys Asn Gly Ile Cys Val Ser Ser Asp Gln Asn His Phe 150 155 Arg Gly Glu Ile Glu Glu Thr Ile Thr Glu Ser Phe Gly Asn Asp His 170 175 165 Ser Thr Leu Asp Gly Tyr Ser Arg Arg Thr Thr Leu Ser Ser Lys Met 190 185 180 Tyr His Thr Lys Gly Gln Glu Gly Ser Val Cys Leu Arg Ser Ser Asp 200 205 195 Cys Ala Ser Gly Leu Cys Cys Ala Arg His Phe Trp Ser Lys Ile Cys 220 215 Lys Pro Val Leu Lys Glu Gly Gln Val Cys Thr Lys His Arg Arg Lys 235 230 225 Gly Ser His Gly Leu Glu Ile Phe Gln Arg Cys Tyr Cys Gly Glu Gly 245 250 255 Leu Ser Cys Arg Ile Gln Lys Asp His His Gln Ala Ser Asn Ser Ser 260 265 Arg Leu His Thr Cys Gln Arg His 275 280

<210> 2316 <211> 1222 <212> PRT <213> Homo sapiens

Pro Val Val Ser Lys Phe Ser Phe Val Ser Leu Ser Ala Pro Gln His Trp Ser Cys Pro Glu Gly Thr Leu Ala Gly Asn Gly Asn Ser Thr Cys Val Gly Pro Ala Pro Phe Leu Ile Phe Ser His Gly Asn Ser Ile Phe Arg Ile Asp Thr Glu Gly Thr Asn Tyr Glu Gln Leu Val Val Asp Ala Gly Val Ser Val Ile Met Asp Phe His Tyr Asn Glu Lys Arg Ile Tyr Trp Val Asp Leu Glu Arg Gln Leu Leu Gln Arg Val Phe Leu Asn Gly Ser Arg Gln Glu Arg Val Cys Asn Ile Glu Lys Asn Val Ser Gly Met Ala Ile Asn Trp Ile Asn Glu Glu Val Ile Trp Ser Asn Gln Glu Gly Ile Ile Thr Val Thr Asp Met Lys Gly Asn Asn Ser His Ile Leu Leu Ser Ala Leu Lys Tyr Pro Ala Asn Val Ala Val Asp Pro Val Glu Arg Phe Ile Phe Trp Ser Ser Glu Val Ala Gly Ser Leu Tyr Arg Ala Asp Leu Asp Gly Val Gly Val Lys Ala Leu Leu Glu Thr Ser Glu Lys Ile Thr Ala Val Ser Leu Asp Val Leu Asp Lys Arg Leu Phe Trp Ile Gln Tyr Asn Arg Glu Gly Ser Asn Ser Leu Ile Cys Ser Cys Asp Tyr Asp Gly Gly Ser Val His Ile Ser Lys His Pro Thr Gln His Asn Leu Phe Ala Met Ser Leu Phe Gly Asp Arg Ile Phe Tyr Ser Thr Trp Lys Met Lys Thr Ile Trp Ile Ala Asn Lys His Thr Gly Lys Asp Met Val Arg Ile Asn Leu His Ser Ser Phe Val Pro Leu Gly Glu Leu Lys Val Val His Pro Leu Ala Gln Pro Lys Ala Glu Asp Asp Thr Trp Glu Pro Glu Gln Lys Leu Cys Lys Leu Arg Lys Gly Asn Cys Ser Ser Thr Val 325 330 335 Cys Gly Gln Asp Leu Gln Ser His Leu Cys Met Cys Ala Glu Gly Tyr . 350 Ala Leu Ser Arg Asp Arg Lys Tyr Cys Glu Gly Asn Asp Trp Lys Tyr Cys Glu Asp Val Asn Glu Cys Ala Phe Trp Asn His Gly Cys Thr Leu Gly Cys Lys Asn Thr Pro Gly Ser Tyr Tyr Cys Thr Cys Pro Val Gly Phe Val Leu Leu Pro Asp Gly Lys Arg Cys His Gln Leu Val Ser Cys Pro Arg Asn Val Ser Glu Cys Ser His Asp Cys Val Leu Thr Ser Glu Gly Pro Leu Cys Phe Cys Pro Glu Gly Ser Val Leu Glu Arg Asp Gly Lys Thr Cys Ser Gly Cys Ser Ser Pro Asp Asn Gly Gly Cys Ser Gln Leu Cys Val Pro Leu Ser Pro Val Ser Trp Glu Cys Asp Cys Phe Pro Gly Tyr Asp Leu Gln Leu Asp Glu Lys Ser Cys Ala Ala Ser Gly Pro Gln Pro Phe Leu Leu Phe Ala Asn Ser Gln Asp Ile Arg His Met His 500 505 Phe Asp Gly Thr Asp Tyr Gly Thr Leu Leu Ser Gln Gln Met Gly Met 

Val Tyr Ala Leu Asp His Asp Pro Val Glu Asn Lys Ile Tyr Phe Ala His Thr Ala Leu Lys Trp Ile Glu Arg Ala Asn Met Asp Gly Ser Gln Arg Glu Arg Leu Ile Glu Glu Gly Val Asp Val Pro Glu Gly Leu Ala Val Asp Trp Ile Gly Arg Arg Phe Tyr Trp Thr Asp Arg Gly Lys Ser Leu Ile Gly Arg Ser Asp Leu Asn Gly Lys Arg Ser Lys Ile Ile Thr Ile Glu Asn Ile Ser Gln Pro Arg Gly Ile Ala Val His Pro Met Ala Lys Arg Leu Phe Trp Thr Asp Thr Gly Ile Asn Pro Arg Ile Glu Ser Ser Ser Leu Gln Gly Leu Gly Arg Leu Val Ile Ala Ser Ser Asp Leu Ile Trp Pro Ser Gly Ile Thr Ile Asp Phe Leu Thr Asp Lys Leu Tyr Trp Cys Asp Ala Lys Gln Ser Val Ile Glu Met Ala Asn Leu Asp Gly Ser Lys Arg Arg Arg Leu Thr Gln Asn Asp Val Gly His Pro Phe Ala Val Ala Val Phe Glu Asp Tyr Val Trp Phe Ser Asp Trp Ala Met Pro Ser Val Ile Arg Val Asn Lys Arg Thr Gly Lys Asp Arg Val Arg Leu Gln Gly Ser Met Leu Lys Pro Ser Ser Leu Val Val His Pro Leu Ala Lys Pro Gly Ala Asp Pro Cys Leu Tyr Gln Asn Gly Gly Cys Glu His Ile Cys Lys Lys Arg Leu Gly Thr Ala Trp Cys Ser Cys Arg Glu Gly Phe Met Lys Ala Ser Asp Gly Lys Thr Cys Leu Ala Leu Asp Gly His Gln Leu Leu Ala Gly Gly Glu Val Asp Leu Lys Asn Gln Val Thr Pro Leu Asp Ile Leu Ser Lys Thr Arg Val Ser Glu Asp Asn Ile Thr ,825 Glu Ser Gln His Met Leu Val Ala Glu Ile Met Val Ser Asp Gln Asp Asp Cys Ala Pro Val Gly Cys Ser Met Tyr Ala Arg Cys Ile Ser Glu Gly Glu Asp Ala Thr Cys Gln Cys Leu Lys Gly Phe Ala Gly Asp Gly Lys Leu Cys Ser Asp Ile Asp Glu Cys Glu Met Gly Val Pro Val Cys Pro Pro Ala Ser Ser Lys Cys Ile Asn Thr Glu Gly Gly Tyr Val Cys Arg Cys Ser Glu Gly Tyr Gln Gly Asp Gly Ile His Cys Leu Asp Ile Asp Glu Cys Gln Leu Gly Val His Ser Cys Gly Glu Asn Ala Ser Cys Thr Asn Thr Glu Gly Gly Tyr Thr Cys Met Cys Ala Gly Arg Leu Ser Glu Pro Gly Leu Ile Cys Pro Asp Ser Thr Pro Pro Pro His Leu Arg 970 975 Glu Asp Asp His His Tyr Ser Val Arg Asn Ser Asp Ser Glu Cys Pro Leu Ser His Asp Gly Tyr Cys Leu His Asp Gly Val Cys Met Tyr Ile Glu Ala Leu Asp Lys Tyr Ala Cys Asn Cys Val Val Gly Tyr Ile Gly Glu Arg Cys Gln Tyr Arg Asp Leu Lys Trp Trp Glu Leu Arg His Ala 

Gly His Gly Gln Gln Lys Val Ile Val Val Ala Val Cys Val Val 1045 1050 Val Leu Val Met Leu Leu Leu Ser Leu Trp Gly Ala His Tyr Tyr 1065 1070 1060 Arg Thr Gln Lys Leu Leu Ser Lys Asn Pro Lys Asn Pro Tyr Glu Glu 1075 1080 1085 Ser Ser Arg Asp Val Arg Ser Arg Arg Pro Ala Asp Thr Glu Asp Gly 1090 1095 1100 Met Ser Ser Cys Pro Gln Pro Trp Phe Val Val Ile Lys Glu His Gln 1105 1110 1115 Asp Leu Lys Asn Gly Gly Gln Pro Val Ala Gly Glu Asp Gly Gln Ala 1130 . 1135 1125 Ala Asp Gly Ser Met Gln Pro Thr Ser Trp Arg Gln Glu Pro Gln Leu 1140 1145 Cys Gly Met Gly Thr Glu Gln Gly Cys Trp Ile Pro Val Ser Ser Asp 1155 1160 1165 Lys Gly Ser Cys Pro Gln Val Met Glu Arg Ser Phe His Met Pro Ser 1170 1175 1180 Tyr Gly Thr Gln Thr Leu Glu Gly Gly Val Glu Lys Pro His Ser Leu 1185 1190 1195 Leu Ser Ala Asn Pro Leu Trp Gln Gln Arg Ala Leu Asp Pro Pro His 1205 1210 Gln Met Glu Leu Thr Gln 1220 1222

<210> 2317 <211> 199 <212> PRT <213> Homo sapiens

<400> 2317 Ser Ser Ala Met Gly Ser Arg Ser Ser His Ala Ala Val Ile Pro Asp 10 Gly Asp Ser Ile Arg Arg Glu Thr Gly Phe Ser Gln Ala Ser Leu Leu 20 25 Arg Leu His His Arg Phe Arg Ala Leu Asp Arg Asn Lys Lys Gly Tyr 40 Leu Ser Arg Met Asp Leu Gln Gln Ile Gly Ala Leu Ala Val Așn Pro 55 60 Leu Gly Asp Arg Ile Ile Glu Ser Phe Phe Pro Asp Gly Ser Gln Arg 75 65 70 Val Asp Phe Pro Gly Phe Val Arg Val Leu Ala His Phe Arg Pro Val 85 90 95 Glu Asp Glu Asp Thr Glu Thr Gln Asp Pro Lys Lys Pro Glu Pro Leu 105 100 110 Asn Ser Arg Arg Asn Lys Leu His Tyr Ala Phe Gln Leu Tyr Asp Leu 115 120 125 Asp Arg Asp Gly Lys Ile Ser Arg His Glu Met Leu Gln Val Leu Arg 135 140 Leu Met Val Gly Val Gln Val Thr Glu Glu Gln Leu Glu Asn Ile Ala 155 Asp Arg Thr Val Gln Glu Ala Asp Glu Asp Gly Asp Gly Ala Val Ser 165 170 175 Phe Val Glu Phe Thr Lys Ser Leu Glu Lys Met Asp Val Glu His Lys 185 . 190 . 180 Met Ser Ile Arg Ile Leu Lys 195 199

<210> 2318

<211> 135 <212> PRT <213> Homo sapiens

<400> 2318 Ile Ser Ser Cys Pro His Thr Ala Tyr Glu Gly Ser Met Ser Thr Leu 5 10 Ser Asn Phe Thr Gln Thr Leu Glu Asp Val Phe Arg Arg Ile Phe Ile 25 Thr Tyr Met Asp Asn Trp Arg Gln Asn Thr Thr Ala Glu Gln Glu Ala 35 40 Leu Gln Ala Lys Val Asp Ala Glu Asn Phe Tyr Tyr Val Ile Leu Tyr 55 60 Leu Met Val Met Ile Gly Met Phe Ser Phe Ile Ile Val Ala Ile Leu 70 75 Val Ser Thr Val Lys Ser Lys Arg Arg Glu His Ser Asn Asp Pro Tyr 85 90 95 His Gln Tyr Ile Val Glu Asp Trp Gln Glu Lys Tyr Lys Ser Gln Ile 110 105 Leu Asn Leu Glu Glu Ser Lys Ala Thr Ile His Glu Asn Ile Gly Ala 115 120 Ala Gly Phe Lys Met Ser Pro 135 130

<210> 2319 <211> 646 <212> PRT <213> Homo sapiens

<400> 2319 Gly Met Pro Arg Ser Arg Gly Gly Arg Ala Ala Pro Gly Pro Pro Pro 1 5 10 15 Pro Pro Pro Pro Pro Gly Gln Ala Pro Arg Trp Ser Arg Trp Arg Val 25 30 Pro Gly Arg Leu Leu Leu Leu Leu Pro Ala Leu Cys Cys Leu Pro 35 40 Gly Ala Ala Arg Ala Ala Ala Ala Ala Gly Ala Gly Asn Arg Ala 55 Ala Val Ala Val Ala Val Ala Arg Ala Asp Glu Ala Glu Ala Pro Phe 75 70 Ala Gly Gln Asn Trp Leu Lys Ser Tyr Gly Tyr Leu Leu Pro Tyr Asp 85 90 ' 95 Ser Arg Ala Ser Ala Leu His Ser Ala Lys Ala Leu Gln Ser Ala Val 100 105 110 Ser Thr Met Gln Gln Phe Tyr Gly Ile Pro Val Thr Gly Val Leu Asp 115 , 120 Gln Thr Thr Ile Glu Trp Met Lys Lys Pro Arg Cys Gly Val Pro Asp 135 140 His Pro His Leu Ser Arg Arg Arg Arg Asn Lys Arg Tyr Ala Leu Thr 150 155 Gly Gln Lys Trp Arg Gln Lys His Ile Thr Tyr Ser Ile His Asn Tyr
165 170 175 165 170 Thr Pro Lys Val Gly Glu Leu Asp Thr Arg Lys Ala Ile Arg Gln Ala 180 185 190 Phe Asp Val Trp Gln Lys Val Thr Pro Leu Thr Phe Glu Glu Val Pro 195 200 205 Tyr His Glu Ile Lys Ser Asp Arg Lys Glu Ala Asp Ile Met Ile Phe 215 220 Phe Ala Ser Gly Phe His Gly Asp Ser Ser Pro Phe Asp Gly Glu Gly 235

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Gly Phe Leu Ala His Ala Tyr Phe Pro Gly Pro Gly Ile Gly Gly Asp
            245 250
Thr His Phe Asp Ser Asp Glu Pro Trp Thr Leu Gly Asn Ala Asn His
                          265
Asp Gly Asn Asp Leu Phe Leu Val Ala Val His Glu Leu Gly His Ala
             280
Leu Gly Leu Glu His Ser Ser Asp Pro Ser Ala Ile Met Ala Pro Phe
                  295
                           300
Tyr Gln Tyr Met Glu Thr His Asn Phe Lys Leu Pro Gln Asp Asp Leu
              310
                               315
Gln Gly Ile Gln Lys Ile Tyr Gly Pro Pro Ala Glu Pro Leu Glu Pro
       325
                     330 335
Thr Arg Pro Leu Pro Thr Leu Pro Val Arg Arg Ile His Ser Pro Ser
                345
        340
                                  350
Glu Arg Lys His Glu Arg Gln Pro Arg Pro Pro Arg Pro Pro Leu Gly
     355
                    `360
                                       365
Asp Arg Pro Ser Thr Pro Gly Thr Lys Pro Asn Ile Cys Asp Gly Asn
 370 375 380
Phe Asn Thr Val Ala Leu Phe Arg Gly Glu Met Phe Val Phe Lys Asp
               390
                                395
Arg Trp Phe Trp Arg Leu Arg Asn Asn Arg Val Gln Glu Gly Tyr Pro
            405
                             410
                                              415
Met Gln Ile Glu Gln Phe Trp Lys Gly Leu Pro Ala Arg Ile Asp Ala
                        425
         420
Ala Tyr Glu Arg Ala Asp Gly Arg Phe Val Phe Phe Lys Gly Asp Lys
             440 ` 445
Tyr Trp Val Phe Lys Glu Val Thr Val Glu Pro Gly Tyr Pro His Ser
            455
                                   460
Leu Gly Glu Leu Gly Ser Cys Leu Pro Arg Glu Gly Ile Asp Thr Ala
465 470
                    475
Leu Arg Trp Glu Pro Val Gly Lys Thr Tyr Phe Phe Lys Gly Glu Arg
            485
                           490
Tyr Trp Arg Tyr Ser Glu Glu Arg Arg Ala Thr Asp Pro Gly Tyr Pro
         500
                          505
Lys Pro Ile Thr Val Trp Lys Gly Ile Pro Gln Ala Pro Gln Gly Ala
                    520
                                     525
Phe Ile Ser Lys Glu Gly Tyr Tyr Thr Tyr Phe Tyr Lys Gly Arg Asp
           535
                           540
Tyr Trp Lys Phe Asp Asn Gln Lys Leu Ser Val Glu Pro Gly Tyr Pro
                        555
545
               550
Arg Asn Ile Leu Arg Asp Trp Met Gly Cys Asn Gln Lys Glu Val Glu
            565
                            570
Arg Arg Lys Glu Arg Arg Leu Pro Gln Asp Asp Val Asp Ile Met Val
         580
                         585
                                          590
Thr Ile Asn Asp Val Pro Gly Ser Val Asn Ala Val Ala Val Val Ile
   595
                      600
                                 605
Pro Cys Ile Leu Ser Leu Cys Ile Leu Val Leu Val Tyr Thr Ile Phe
 610 615
Gln Phe Lys Asn Lys Thr Gly Pro Gln Pro Val Thr Tyr Tyr Lys Arg
               630
Pro Val Gln Glu Trp Val
          645 646
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<210> 2320

<211> 329

<212> PRT

<213> Homo sapiens

<400> 2320

Ser Arg Leu Ser Leu Gln Phe Tyr Val Ser Phe Arg Arg Thr Gly Leu 1 5 10

Phe Thr Cys Lys Leu Ile Val Glu Ile Phe Phe Arg Asn Tyr Met Asn Asp Ser Leu Arg Thr Asn Val Phe Val Arg Phe Gln Pro Glu Thr Ile 40 Ala Cys Ala Cys Ile Tyr Leu Ala Ala Arg Ala Leu Gln Ile Pro Leu 55 Pro Thr Arg Pro His Trp Phe Leu Leu Phe Gly Thr Thr Glu Glu Glu Ile Gln Glu Ile Cys Ile Glu Thr Leu Arg Leu Tyr Thr Arg Lys Lys 85 90 Pro Asn Tyr Glu Leu Leu Glu Lys Glu Val Glu Lys Arg Lys Val Ala 100 105 110 Leu Gln Glu Ala Lys Leu Lys Ala Lys Gly Leu Asn Pro Asp Gly Thr 115 120 125 Pro Ala Leu Ser Thr Leu Gly Gly Phe Ser Pro Ala Ser Lys Pro Ser 135 140 Ser Pro Arg Glu Val Lys Ala Glu Glu Lys Ser Pro Ile Ser Ile Asn 155 150 Val Lys Thr Val Lys Lys Glu Pro Glu Asp Arg Gln Gln Ala Ser Lys 170 165 Ser Pro Tyr Asn Gly Val Arg Lys Asp Ser Lys Arg Ser Arg Asn Ser 185 180 Arg Ser Ala Ser Arg Ser Arg Ser Arg Thr Arg Ser Arg Ser Arg Ser 195 200 205 His Thr Pro Arg Arg His Tyr Asn Asn Arg Arg Ser Arg Ser Gly Thr 210 215 220 Tyr Ser Ser Arg Ser Arg Ser Arg Ser Arg Ser His Ser Glu Ser Pro 230 235 Arg Arg His His Asn His Gly Ser Pro His Leu Lys Ala Lys His Thr 245 250 Arg Asp Asp Leu Lys Ser Ser Asn Arg His Gly His Lys Arg Lys Lys 260 265 270 Ser Arg Ser Arg Ser Gln Ser Lys Ser Arg Asp His Ser Asp Ala Ala 275 280 285 Lys Lys His Arg His Glu Arg Gly His His Arg Asp Arg Arg Glu Arg 290 295 300 Ser Arg Ser Phe Glu Arg Ser His Lys Ser Lys His His Gly Gly Ser 310 Arg Ser Gly His Gly Arg His Arg Arg 325

<210> 2321 <211> 1090 <212> PRT <213> Homo sapiens

<400> 2321

 Asp
 Cys
 Arg
 Leu
 Gln
 Ala
 Ala
 Met
 Pro
 Thr
 Asn
 Phe
 Thr
 Val
 Val
 Pro

 Val
 Glu
 Ala
 His
 Ala
 Asp
 Gly
 Gly
 Gly
 Asp
 Glu
 Thr
 Ala
 Glu
 Arg
 Thr
 Arg
 Thr
 Arg
 Glu
 Asp
 Fro
 Glu
 Arg
 Fro
 Glu
 Arg
 Fro
 Glu
 Arg
 Fro
 Arg
 Arg
 Fro

Glu Glu Ser Arg Arg Glu Ala Lys Ala Pro Arg Met Gly Thr Phe Ile Gly Val Tyr Leu Pro Cys Leu Gln Asn Ile Leu Gly Val Ile Leu Phe Leu Arg Leu Thr Trp Ile Val Gly Val Ala Gly Val Leu Glu Ser Phe Leu Ile Val Ala Met Cys Cys Thr Cys Thr Met Leu Thr Ala Ile Ser Met Ser Ala Ile Ala Thr Asn Gly Val Val Pro Ala Gly Gly Ser Tyr Tyr Met Ile Ser Arg Ser Leu Gly Pro Glu Phe Gly Gly Ala Val Gly Leu Cys Phe Tyr Leu Gly Thr Thr Phe Ala Gly Ala Met Tyr Ile Leu Gly Thr Ile Glu Ile Phe Leu Thr Tyr Ile Ser Pro Gly Ala Ala Ile Phe Gln Ala Glu Ala Ala Gly Gly Glu Ala Ala Ala Met Leu His Asn Met Arg Val Tyr Gly Thr Cys Thr Leu Val Leu Met Ala Leu Val Val Phe Val Gly Val Lys Tyr Val Asn Lys Leu Ala Leu Val Phe Leu Ala Cys Val Val Leu Ser Ile Leu Ala Ile Tyr Ala Gly Val Ile Lys Ser Ala Phe Asp Pro Pro Asp Ile Pro Val Cys Leu Leu Gly Asn Arg Thr Leu Ser Arg Arg Ser Phe Asp Ala Cys Val Lys Ala Tyr Gly Ile His Asn Asn Ser Ala Thr Ser Ala Leu Trp Gly Leu Phe Cys Asn Gly Ser Gln Pro Ser Ala Ala Cys Asp Glu Tyr Phe Ile Gln Asn Asn Val Thr Glu Ile Gln Gly Ile Pro Gly Ala Ala Ser Gly Val Phe Leu Glu Asn Leu Trp Ser Thr Tyr Ala His Ala Gly Ala Phe Val Glu Lys Lys Gly Val Pro Ser Val Pro Val Ala Glu Glu Ser Arg Ala Ser Thr Leu Pro Tyr Val Leu Thr Asp Ile Ala Ala Ser Phe Thr Leu Leu Val Gly Ile Tyr Phe Pro Ser Val Thr Gly Ile Met Ala Gly Ser Asn Arg Ser Gly Asp Leu Lys Asp Ala Gln Lys Ser Ile Pro Thr Gly Thr Ile Leu Ala Ile Val Thr Thr Ser Phe Ile Tyr Leu Ser Cys Ile Val Leu Phe Gly Ala Cys Ile Glu Gly Val Val Leu Arg Asp Lys Phe Gly Glu Ala Leu Gln Gly Asn Leu Val Ile Gly Met Leu Ala Trp Pro Ser Pro Trp Val Ile Val Ile Gly Ser Phe Phe Ser Thr Cys Gly Ala Gly Leu Gln Thr Leu Thr Gly Ala Pro Arg Leu Leu Gln Ala Ile Ala Arg Asp Gly Ile Val Pro Phe Leu Gln Val Phe Gly His Gly Lys Ala Asn Gly Glu Pro Thr Trp Ala Leu Leu Leu Thr Val Leu Ile Cys Glu Thr Gly Ile Leu Ile Ala Ser Leu Asp Ser Val Ala Pro Ile Leu Ser Met Phe Phe Leu Met Cys Tyr Leu Phe Val Asn Leu Ala Cys Ala Val Gln Thr Leu Leu Arg Thr Pro Asn Trp Arg Pro Arg Phe Lys Phe Tyr His Trp Thr

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Leu Ser Phe Leu Gly Met Ser Leu Cys Leu Ala Leu Met Phe Ile Cys
                 630
                                   635
Ser Trp Tyr Tyr Ala Leu Ser Ala Met Leu Ile Ala Gly Cys Ile Tyr
                                650
              645
Lys Tyr Ile Glu Tyr Arg Gly Ala Glu Lys Glu Trp Gly Asp Gly Ile
          660
                           665
Arg Gly Leu Ser Leu Asn Ala Ala Arg Tyr Ala Leu Leu Arg Val Glu
      675
                       680
                                         685
His Gly Pro Pro His Thr Lys Asn Trp Arg Pro Gln Val Leu Val Met
                     695
                                       700
Leu Asn Leu Asp Ala Glu Gln Ala Met Lys His Pro Arg Leu Leu Ser
            710
                                  715
Phe Thr Ser Gln Leu Lys Ala Gly Lys Gly Leu Thr Ile Val Gly Ser
            725 · 730 735
Val Leu Glu Gly Thr Tyr Leu Asp Lys His Met Glu Ala Gln Arg Ala
          740 745
Glu Glu Asn Ile Arg Ser Leu Met Ser Thr Glu Lys Thr Lys Gly Phe
                       760
Cys Gln Leu Val Val Ser Ser Ser Leu Arg Asp Gly Met Ser His Leu
                                       780
                    775
Ile Gln Ser Ala Gly Leu Gly Gly Leu Lys His Asn Thr Val Leu Met
                  790
                                  795
Ala Trp Pro Ala Ser Trp Lys Gln Glu Asp Asn Pro Phe Ser Trp Lys
             805
                       810
Asn Phe Val Asp Thr Val Arg Asp Thr Thr Ala Ala His Gln Ala Leu
          820
                            825
Leu Val Ala Lys Asn Val Asp Ser Phe Pro Gln Asn Gln Glu Arg Phe
     835
                        840
                                          845
Gly Gly Gly His Ile Asp Val Trp Trp Ile Val His Asp Gly Gly Met
                                       860
                     855
Leu Met Leu Leu Pro Phe Leu Leu Arg Gln His Lys Val Trp Arg Lys
                 870
                                   875
Cys Arg Met Arg Ile Phe Thr Val Ala Gln Val Asp Asp Asn Ser Ile
                               890
Gln Met Lys Lys Asp Leu Gln Met Phe Leu Tyr His Leu Arg Ile Ser
          900
                           905
Ala Glu Val Glu Val Glu Met Val Glu Asn Asp Ile Ser Ala Phe
                        920
      915
Thr Tyr Glu Arg Thr Leu Met Met Glu Gln Arg Ser Gln Met Leu Lys
                                      940
                    935
Gln Met Gln Leu Ser Lys Asn Glu Gln Glu Arg Glu Ala Gln Leu Ile
                 950
                                 . 955
His Asp Arg Asn Thr Ala Ser His Thr Ala Ala Ala Ala Arg Thr Gln
             965
                               970
Ala Pro Pro Thr Pro Asp Lys Val Gln Met Thr Trp Thr Arg Glu Lys
                           985
         980
                                           990
Leu Ile Ala Glu Lys Tyr Arg Ser Arg Asp Thr Ser Leu Ser Gly Phe
      995
                       1000
                                         1005
Lys Asp Leu Phe Ser Met Lys Pro Asp Gln Ser Asn Val Arg Arg Met
                   1015
                                      1020
His Thr Ala Val Lys Leu Asn Gly Val Val Leu Asn Lys Ser Gln Asp
               1030
                                  1035
Ala Gln Leu Val Leu Leu Asn Met Pro Gly Pro Pro Lys Asn Arg Gln
            1045 1050 1055
Gly Asp Glu Asn Tyr Met Glu Phe Leu Glu Val Leu Thr Glu Gly Leu
                          1065
Asn Arg Val Leu Leu Val Arg Gly Gly Gly Arg Glu Val Ile Thr Ile
                       1080
Tyr Ser
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<210> 2322

1090

<211> 151 <212> PRT <213> Homo sapiens

<400> 2322 Thr Ser Arg Arg Val Thr Met Lys Phe Asn Pro Phe Val Thr Ser Asp 10 Arg Ser Lys Asn Arg Lys Arg His Phe Asn Ala Pro Ser His Val Arg 20 25 Arg Lys Ile Met Ser Ser Pro Leu Ser Lys Glu Leu Arg Gln Lys Tyr Asn Val Arg Ser Met Pro Ile Arg Lys Asp Asp Glu Val Gln Val Val 55 Arg Gly His Tyr Lys Gly Gln Gln Ile Gly Lys Val Val Gln Val Tyr 70 Arg Lys Lys Tyr Val Ile Tyr Ile Glu Arg Val Gln Arg Glu Lys Ala 85 90 Asn Gly Thr Thr Val His Val Gly Ile His Pro Ser Lys Val Val Ile 100 105 Thr Arg Leu Lys Leu Asp Lys Asp Arg Lys Lys Ile Leu Glu Arg Lys 120 Ala Lys Ser Arg Gln Val Gly Lys Glu Lys Gly Lys Tyr Lys Glu Glu 135 Leu Ile Glu Lys Met Gln Glu 145 150 151

<210> 2323 <211> 1245 <212> PRT <213> Homo sapiens

<400> 2323 Gly Cys Pro His Ala Gly Gly Lys Gly Arg Val Pro Thr Gly Gly Leu 10 Thr Gly Gly Arg Thr Trp Ser Pro Ser Ala Ala Pro Arg Ser Cys Pro 20 25 Arg Pro Gly Pro Thr Pro Ala Pro Gly Ala Met Asp Lys Leu Pro Pro 40 Ser Met Arg Lys Arg Leu Tyr Ser Leu Pro Gln Gln Val Gly Ala Lys Ala Trp Ile Met Asp Glu Glu Glu Asp Ala Glu Glu Glu Gly Ala Gly 75 Gly Arg Gln Asp Pro Ser Arg Arg Ser Ile Arg Leu Arg Pro Leu Pro 90 Ser Pro Ser Pro Ser Ala Ala Ala Gly Gly Thr Glu Ser Arg Ser Ser 100 105 Ala Leu Gly Ala Ala Asp Ser Glu Gly Pro Ala Arg Gly Ala Gly Lys 120 125 Ser Ser Thr Asn Gly Asp Cys Arg Arg Phe Arg Gly Ser Leu Ala Ser 135 Leu Gly Ser Arg Gly Gly Gly Ser Gly Gly Thr Gly Ser Gly Ser Ser 155 His Gly His Leu His Asp Ser Ala Glu Glu Arg Arg Leu Ile Ala Glu 165 170 Gly Asp Ala Ser Pro Gly Glu Asp Arg Thr Pro Pro Gly Leu Ala Ala 180 185 Glu Pro Glu Arg Pro Gly Ala Ser Ala Gln Pro Ala Ala Ser Pro Pro 200 205 Pro Pro Gln Gln Pro Pro Gln Pro Ala Ser Ala Ser Cys Glu Gln Pro

Ser Val Asp Thr Ala Ile Lys Val Glu Gly Gly Ala Ala Ala Gly Asp Gln Ile Leu Pro Glu Ala Glu Val Arg Leu Gly Gln Ala Gly Phe Met Gln Arg Gln Phe Gly Ala Met Leu Gln Pro Gly Val Asn Lys Phe Ser Leu Arg Met Phe Gly Ser Gln Lys Ala Val Glu Arg Glu Gln Glu Arg Val Lys Ser Ala Gly Phe Trp Ile Ile His Pro Tyr Ser Asp Phe Arg Phe Tyr Trp Asp Leu Thr Met Leu Leu Leu Met Val Gly Asn Leu Ile Ile Ile Pro Val Gly Ile Thr Phe Phe Lys Asp Glu Asn Thr Thr Pro Trp Ile Val Phe Asn Val Val Ser Asp Thr Phe Phe Leu Ile Asp Leu Val Leu Asn Phe Arg Thr Gly Ile Val Val Glu Asp Asn Thr Glu Ile Ile Leu Asp Pro Gln Arg Ile Lys Met Lys Tyr Leu Lys Ser Trp Phe Met Val Asp Phe Ile Ser Ser Ile Pro Val Asp Tyr Ile Phe Leu Ile Val Glu Thr Arg Ile Asp Ser Glu Val Tyr Lys Thr Ala Arg Ala Leu Arg Ile Val Arg Phe Thr Lys Ile Leu Ser Leu Leu Arg Leu Leu Arg Leu Ser Arg Leu Ile Arg Tyr Ile His Gln Trp Glu Glu Ile Phe His Met Thr Tyr Asp Leu Ala Ser Ala Val Val Arg Ile Val Asn Leu Ile Gly Met Met Leu Leu Cys His Trp Asp Gly Cys Leu Gln Phe Leu Val Pro Met Leu Gln Asp Phe Pro Asp Asp Cys Trp Val Ser Ile Asn Asn Met Val Asn Asn Ser Trp Gly Lys Gln Tyr Ser Tyr Ala Leu Phe Lys Ala Met Ser His Met Leu Cys Ile Gly Tyr Gly Arg Gln Ala Pro Val Gly Met Ser Asp Val Trp Leu Thr Met Leu Ser Met Ile Val Gly Ala Thr Cys Tyr Ala Met Phe Ile Gly His Ala Thr Ala Leu Ile Gln Ser Leu Asp Ser Ser Arg Arg Gln Tyr Gln Glu Lys Tyr Lys Gln Val Glu Gln Tyr Met Ser Phe His Lys Leu Pro Pro Asp Thr Arg Gln Arg Ile His Asp Tyr Tyr Glu His Arg Tyr Gln Gly Lys Met Phe Asp Glu Glu Ser Ile Leu Gly Glu Leu Ser Glu Pro Leu Arg Glu Glu Ile Ile Asn Phe Asn Cys Arg Lys Leu Val Ala Ser Met Pro Leu Phe Ala Asn Ala Asp Pro Asn Phe Val Thr Ser Met Leu Thr Lys Leu Arg Phe Glu Val Phe Gln Pro Gly Asp Tyr Ile Ile Arg Glu Gly Thr Ile Gly Lys Lys Met Tyr Phe Ile Gln His Gly Val Val Ser Val Leu Thr Lys Gly Asn Lys Glu Thr Lys Leu Ala Asp Gly Ser Tyr Phe Gly Glu Ile Cys Leu Leu Thr Arg Gly Arg Arg Thr Ala Ser Val Arg Ala Asp Thr Tyr Cys Arg Leu Tyr Ser Leu Ser Val Asp Asn Phe Asn Glu Val Leu Glu 

Glu Tyr Pro Met Met Arg Arg Ala Phe Glu Thr Val Ala Leu Asp Arg 740 745 Leu Asp Arg Ile Gly Lys Lys Asn Ser Ile Leu Leu His Lys Val Gln 760 His Asp Leu Asn Ser Gly Val Phe Asn Tyr Gln Glu Asn Glu Ile Ile 780 770 775 Gln Gln Ile Val Gln His Asp Arg Glu Met Ala His Cys Ala His Arg 795 790 Val Gln Ala Ala Ala Ser Ala Thr Pro Thr Pro Thr Pro Val Ile Trp 805 810 Thr Pro Leu Ile Gln Ala Pro Leu Gln Ala Ala Ala Ala Thr Thr Ser 820 825 830 Val Ala Ile Ala Leu Thr His His Pro Arg Leu Pro Ala Ala Ile Phe 835 840 845 Arg Pro Pro Pro Gly Ser Gly Leu Gly Asn Leu Gly Ala Gly Gln Thr 855 860 Pro Arg His Leu Lys Arg Leu Gln Ser Leu Ile Pro Ser Ala Leu Gly 870 875 Ser Ala Ser Pro Ala Ser Ser Pro Ser Gln Val Asp Thr Pro Ser Ser 885 890 Ser Ser Phe His Ile Gln Gln Leu Ala Gly Phe Ser Ala Pro Ala Gly 905 Leu Ser Pro Leu Leu Pro Ser Ser Ser Ser Pro Pro Pro Gly Ala 915 · 920 925 Cys Gly Ser Pro Ser Ala Pro Thr Pro Ser Ala Gly Val Ala Ala Thr 930 935 940 Thr Ile Ala Gly Phe Gly His Phe His Lys Ala Leu Gly Gly Ser Leu 950 955 Ser Ser Ser Asp Ser Pro Leu Leu Thr Pro Leu Gln Pro Gly Ala Arg . 965 970 Ser Pro Gln Ala Ala Gln Pro Ser Pro Ala Pro Pro Gly Ala Arg Gly 980 985 990 Gly Leu Gly Leu Pro Glu His Phe Leu Pro Pro Pro Pro Ser Ser Arg 1000 1005 Ser Pro Ser Ser Pro Gly Gln Leu Gly Gln Pro Pro Gly Glu Leu 1015 1020 Ser Leu Gly Leu Ala Thr Gly Pro Leu Ser Thr Pro Glu Thr Pro Pro 1025 1030 1035 Arg Gln Pro Glu Pro Pro Ser Leu Val Ala Gly Ala Ser Gly Gly Ala 1045 1050 1055 Ser Pro Val Gly Phe Thr Pro Arg Gly Gly Leu Ser Pro Pro Gly His 1060 1065 Ser Pro Gly Pro Pro Arg Thr Phe Pro Ser Ala Pro Pro Arg Ala Ser 1075 1080 1085 Gly Ser His Gly Ser Leu Leu Pro Pro Ala Ser Ser Pro Pro Pro 1090 1095 1100 Pro Gln Val Pro Gln Arg Arg Gly Thr Pro Pro Leu Thr Pro Gly Arg 1110 1115 Leu Thr Gln Asp Leu Lys Leu Ile Ser Ala Ser Gln Pro Ala Leu Pro 1125 1130 1135 Gln Asp Gly Ala Gln Thr Leu Arg Arg Ala Ser Pro His Ser Ser Gly 1140 1145 1150 Glu Ser Met Ala Ala Phe Pro Leu Phe Pro Arg Ala Gly Gly Ser 1155 1160 1165 Gly Gly Ser Gly Ser Ser Gly Gly Leu Gly Pro Pro Gly Arg Pro Tyr 1170 1175 1180 Gly Ala Ile Pro Gly Gln His Val Thr Leu Pro Arg Lys Thr Ser Ser 1185 1190 1195 1200 Gly Ser Leu Pro Pro Pro Leu Ser Leu Phe Gly Ala Arg Ala Thr Ser 1205 1210 Ser Gly Gly Pro Pro Leu Thr Ala Gly Pro Gln Arg Glu Pro Gly Ala 1220 1225 1230 Arg Pro Glu Pro Val Arg Ser Lys Leu Pro Ser Asn Leu 1235 1240

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Ser Lys Lys Gly Arg Glu Ser Val Pro Thr Lys Pro Thr Pro Gly Glu 295 300 Arg Arg Tyr Ile Cys Ala Glu Cys Gly Lys Ala Phe Ser Asn Ser Ser 310 315 320 Asn Leu Thr Lys His Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Val 330 325 Cys Thr Lys Cys Gly Lys Ala Phe Ser His Ser Ser Asn Leu Thr Leu 340 345 His Tyr Arg Thr His Leu Val Asp Arg Pro Tyr Asp Cys Lys Cys Gly 360 365 Lys Ala Phe Gly Gln Ser Ser Asp Leu Leu Lys His Gln Arg Met His 375 380 Thr Glu Glu Ala Pro Tyr Gln Cys Lys Asp Cys Gly Lys Ala Phe Ser 395 390 Cly Lys Gly Ser Leu Ile Arg His Tyr Arg Ile His Thr Gly Glu Lys 410 405 Pro Tyr Gln Cys Asn Glu Cys Gly Lys Ser Phe Ser Gln His Ala Gly 425 420 Leu Ser Ser His Gln Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys 440 Lys Glu Cys Gly Lys Ala Phe Asn His Ser Ser Asn Phe Asn Lys His 455 460 His Arg Ile His Thr Gly Glu Lys Pro Tyr Trp Cys His His Cys Gly 470 475 Lys Thr Phe Cys Ser Lys Ser Asn Leu Ser Lys His Gln Arg Val His 490 485 Thr Gly Glu Gly Glu Ala Pro 500

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Gly Asp Gln Glu Val Ser Glu Leu Cys Gly Leu Pro Arg Glu Lys Leu
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Ala Ala Ala Glu Arg Val Leu Arg Ser Asn Met Asp Ile Leu Lys Pro
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Ile Leu Arg Thr Leu Asn Ser Thr Ser Pro Phe Pro Ser Lys Glu Leu
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                                       255
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Ala Glu Ala Thr Lys Thr Leu Leu His Ser Leu Gly Thr Leu Ala Gln
        260
                265
Glu Leu Phe Ser Met Arg Ser Trp Ser Asp Met Arg Gln Glu Val Met
              280 285
      275
Phe Leu Thr Asn Val Asn Ser Ser Ser Ser Ser Thr Gln Ile Tyr Gln
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Ala Val Ser Arg Ile Val Cys Gly His Pro Glu Gly Gly Leu Lys
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Ile Lys Ser Leu Asn Trp Tyr Glu Asp Asn Asn Tyr Lys Ala Leu Phe
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            325
Gly Gly Asn Gly Thr Glu Glu Asp Ala Glu Thr Phe Tyr Asp Asn Ser
     340 345
Thr Thr Pro Tyr Cys Asn Asp Leu Met Lys Asn Leu Glu Ser Ser Pro
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Val Asn Lys Thr Phe Gln Glu Leu Ala Val Phe His Asp Leu Glu Gly
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Met Trp Glu Glu Leu Ser Pro Lys Ile Trp Thr Phe Met Glu Asn Ser
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Gln Glu Met Asp Leu Val Arg Met Leu Leu Asp Ser Arg Asp Asn Asp
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His Phe Trp Glu Gln Gln Leu Asp Gly Leu Asp Trp Thr Ala Gln Asp
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                    455
Ile Val Ala Phe Leu Ala Lys His Pro Glu Asp Val Gln Ser Ser Asn
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Gly Ser Val Tyr Thr Trp Arg Glu Ala Phe Asn Glu Thr Asn Gln Ala
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Ile Arg Thr Ile Ser Arg Phe Met Glu Cys Val Asn Leu Asn Lys Leu
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Leu Asp Glu Arg Lys Phe Trp Ala Gly Ile Val Phe Thr Gly Ile Thr
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Pro Gly Ser Ile Glu Leu Pro His His Val Lys Tyr Lys Ile Arg Met
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Val Leu Thr Gly Thr Glu Lys Lys Thr Gly Val Tyr Met Gln Gln Met
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Ile Ser Ser Leu Ile Pro Leu Leu Val Ser Ala Gly Leu Leu Val Val
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Ile Leu Lys Leu Gly Asn Leu Leu Pro Tyr Ser Asp Pro Ser Val Val
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Asp Leu Gly Ile Ser Ser Tyr Gly Ile Ser Glu Thr Thr Leu Glu Glu 1245 1240 1235 Ile Phe Leu Lys Val Ala Glu Glu Ser Gly Val Asp Ala Glu Thr Ser 1260 1250 1255 Asp Gly Thr Leu Pro Ala Arg Arg Asn Arg Arg Ala Phe Gly Asp Lys 1275 1270 Gln Ser Cys Leu Arg Pro Phe Thr Glu Asp Asp Ala Ala Asp Pro Asn 1285 1290 1295 Asp Ser Asp Ile Asp Pro Glu Ser Arg Glu Thr Asp Leu Leu Ser Gly 1305 1310 1300 Met Asp Gly Lys Gly Ser Tyr Gln Val Lys Gly Trp Lys Leu Thr Gln 1315 1320 1325 Gln Gln Phe Val Ala Leu Leu Trp Lys Arg Leu Leu Ile Ala Arg Arg 1340 1330 1335 Ser Arg Lys Gly Phe Phe Ala Gln Ile Val Leu Pro Ala Val Phe Val 1350 1355 1360 Cys Ile Ala Leu Val Phe Ser Leu Ile Val Pro Pro Phe Gly Lys Tyr 1365 1370 1375 Pro Ser Leu Glu Leu Gln Pro Trp Met Tyr Asn Glu Gln Tyr Thr Phe 1380 1385 1390 Val Ser Asn Asp Ala Pro Glu Asp Thr Gly Thr Leu Glu Leu Leu Asn 1395 1400 1405 Ala Leu Thr Lys Asp Pro Gly Phe Gly Thr Arg Cys Met Glu Gly Asn 1410 1415 1420 1410 1415 Pro Ile Pro Asp Thr Pro Cys Gln Ala Gly Glu Glu Glu Trp Thr Thr 1430 1435 1425 Ala Pro Val Pro Gln Thr Ile Met Asp Leu Phe Gln Asn Gly Asn Trp 1445 1450 1455 Thr Met Gln Asn Pro Ser Pro Ala Cys Gln Cys Ser Ser Asp Lys Ile 1460 1465 1470 Lys Lys Met Leu Pro Val Cys Pro Pro Gly Ala Gly Gly Leu Pro Pro 1475 1480 1485 Pro Gln Arg Lys Gln Asn Thr Ala Asp Ile Leu Gln Asp Leu Thr Gly 1490 1495 1500 Arg Asn Ile Ser Asp Tyr Leu Val Lys Thr Tyr Val Gln Ile Ile Ala 1510 1515 1520 Lys Ser Leu Lys Asn Lys Ile Trp Val Asn Glu Phe Arg Tyr Gly Gly 1525 1530 1535 Phe Ser Leu Gly Val Ser Asn Thr Gln Ala Leu Pro Pro Ser Gln Glu 1540 1545 1550 Val Asn Asp Ala Thr Lys Gln Met Lys Lys His Leu Lys Leu Ala Lys 1555 1560 1565 Asp Ser Ser Ala Asp Arg Phe Leu Asn Ser Leu Gly Arg Phe Met Thr 1570 1575 1580 Gly Leu Asp Thr Arg Asn Asn Val Lys Val Trp Phe Asn Asn Lys Gly 1585 1590 1595 Trp His Ala Ile Ser Ser Phe Leu Asn Val Ile Asn Asn Ala Ile Leu 1605 1610 1615 Arg Ala Asn Leu Gln Lys Gly Glu Asn Pro Ser His Tyr Gly Ile Thr 1620 1625 1630 Ala Phe Asn His Pro Leu Asn Leu Thr Lys Gln Gln Leu Ser Glu Val 1635 1640 1645 Ala Pro Met Thr Thr Ser Val Asp Val Leu Val Ser Ile Cys Val Ile 1650 1655 1660 Phe Ala Met Ser Phe Val Pro Ala Ser Phe Val Val Phe Leu Ile Gln 1670 1675 1680 Glu Arg Val Ser Lys Ala Lys His Leu Gln Phe Ile Ser Gly Val Lys 1685 1690 1695 Pro Val Ile Tyr Trp Leu Ser Asn Phe Val Trp Asp Met Cys Asn Tyr 1700 1705 1710 Val Val Pro Ala Thr Leu Val Ile Ile Ile Phe Ile Cys Phe Gln Gln 1715 1720 1725 Lys Ser Tyr Val Ser Ser Thr Asn Leu Pro Val Leu Ala Leu Leu Leu 1735 1740

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Trp Leu Phe Ile Gly Leu Ala Val Ala Gly Leu Ile Tyr Leu Arg Tyr 420 425 Lys Cys Pro Asp Met His Arg Pro Phe Lys Val Pro Leu Phe Ile Pro 440 Ala Leu Phe Ser Phe Thr Cys Leu Phe Met Val Ala Leu Ser Leu Tyr 460 455 Ser Asp Pro Phe Ser Thr Gly Ile Gly Phe Val Ile Thr Leu Thr Gly 470 475 Val Pro Ala Tyr Tyr Leu Phe Ile Ile Trp Asp Lys Lys Pro Arg Trp 490 485 Phe Arg Ile Met Ser Glu Lys Ile Thr Arg Thr Leu Gln Ile Ile Leu 500 505 Glu Val Val Pro Glu Glu Asp Lys Leu 520 521

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Lys Ser Lys Pro Gly Ser Pro His Trp Gln Thr Lys Leu Glu Ala Ala
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Gln Asn Val Leu Leu Cys Lys Glu Ile Phe Ala Gln Leu Ser Arg Glu
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His Ser Ser Asn Asp Lys Lys Ser Gln Lys Phe Ala Thr Glu Lys Gln
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Leu Leu Glu Lys Ile Ile Lys Gln Ala Lys His Ile Phe Leu Arg Ser
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Gln Ile Gln Ala His Trp Ser Asn Ile Asn Asp Val Tyr Glu Ser Ser
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Val Lys Val Leu Ile Thr Ser Gln Gly Tyr Glu Gln Ile Cys Lys Ser
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               550
Ile Gln Leu Gln Leu Asn Ile Gly Val Glu Gln Ile Arg Val Val His
                     570
        . 565
Arg Asp Gly Arg Val Ile Thr Leu Ser Tyr Gln Glu Gln Glu Leu Gln
                                         590
                          585
         580
Asp Phe Leu Leu Ser Gln Met Ser Gln His Gln Val His Ala Val Gln
                       600
                                        605
      595
Gln Leu Ala Lys Val Met Gly Trp Gln Val Leu Ser Phe Ser Asn His
                             620
                  615
Val Gly Leu Gly Pro Ile Glu Ser Ile Gly Asn Ala Ser Ala Ile Thr
         630
                                 635
Val Ala Ser Pro Ser Gly Asp Tyr Ala Ile Ser Val Arg Asn Gly Pro
              645
                             650
Glu Ser Gly Ser Lys Ile Met Val Gln Phe Pro Arg Asn Gln Cys Lys
                                 670
                          665
Asp Leu Pro Lys Ser Asp Val Leu Gln Asp Asn Lys Trp Ser His Leu
                                 6B5
                       680
      675
Arg Gly Pro Phe Lys Glu Val Gln Trp Asn Lys Met Glu Gly Arg Asn
   690 . 695
                                   700
Phe Val Tyr Lys Met Glu Leu Leu Met Ser Ala Leu Ser Pro Cys Leu
                                  715
                710
Leu
 721
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<210> 2329 <211> 350 <212> PRT <213> Homo sapiens

<400> 2329
Phe Val Trp Asn Pro Arg Gly Gly Arg Lys Arg Arg Arg Gln Ala Ala
1 5 10 15

Val Thr Gln Ala Ala Thr Arg Ala Ser Gly Thr Pro Ser Pro Arg Asp Gly Thr Met Thr Gln Gly Lys Leu Ser Val Ala Asn Lys Ala Pro Gly Thr Glu Gly Gln Gln Gln Val His Gly Glu Lys Lys Glu Ala Pro Ala 55 Val Pro Ser Ala Pro Pro Ser Tyr Glu Glu Ala Thr Ser Gly Glu Gly Met Lys Ala Gly Ala Phe Pro Pro Ala Pro Thr Ala Val Pro Leu His 90 85 Pro Ser Trp Ala Tyr Val Asp Pro Ser Ser Ser Ser Tyr Asp Asn 105 Gly Phe Pro Thr Gly Asp His Glu Leu Phe Thr Thr Phe Ser Trp Asp 120 Asp Gln Lys Val Arg Arg Val Phe Val Arg Lys Val Tyr Thr Ile Leu 140 135 Leu Ile Gln Leu Leu Val Thr Leu Ala Val Val Ala Leu Phe Thr Phe 150 155 Cys Asp Pro Val Lys Asp Tyr Val Gln Ala Asn Pro Gly Trp Tyr Trp 170 165 Ala Ser Tyr Ala Val Phe Phe Ala Thr Tyr Leu Thr Leu Ala Cys Cys 185 190 180 Ser Gly Pro Arg Arg His Phe Pro Trp Asn Leu Ile Leu Leu Thr Val 205 200 Phe Thr Leu Ser Met Ala Tyr Leu Thr Gly Met Leu Ser Ser Tyr Tyr 215 220 Asn Thr Thr Ser Val Leu Leu Cys Leu Gly Ile Thr Ala Leu Val Cys-230 235 Leu Ser Val Thr Val Phe Ser Phe Gln Thr Lys Phe Asp Phe Thr Ser 250 245 Cys Gln Gly Val Leu Phe Val Leu Leu Met Thr Leu Phe Phe Ser Gly 270 265 Leu Ile Leu Ala Ile Leu Leu Pro Phe Gln Tyr Val Pro Trp Leu His 280 275 Ala Val Tyr Ala Ala Leu Gly Ala Gly Val Phe Thr Leu Phe Leu Ala 295 300 Leu Asp Thr Gln Leu Leu Met Gly Asn Arg Arg His Ser Leu Ser Pro 315 310 Glu Glu Tyr Ile Phe Gly Ala Leu Asn Ile Tyr Leu Asp Ile Ile Tyr 330 325 Ile Phe Thr Phe Phe Leu Gln Leu Phe Gly Thr Asn Arg Glu

<210> 2330 <211> 266 <212> PRT <213> Homo sapiens

<400> 2330 Ala Ser Gln Leu Pro Asp Tyr Ser Ile Ser Pro Pro Ser Leu Pro Pro 10 Arg Ile Ser Phe His Pro Ser Pro Thr Leu Ala Arg Val Ala Met Ala 20 25 Glu Pro Ser Glu Ala Thr Gln Ser His Ser Ile Ser Ser Ser Phe 40 Gly Ala Glu Pro Ser Ala Pro Gly Gly Gly Gly Ser Pro Gly Ala Cys 55 Pro Ala Leu Gly Thr Lys Ser Cys Ser Ser Ser Cys Ala Val His Asp 75 70 Leu Ile Phe Trp Arg Asp Val Lys Lys Thr Gly Phe Val Phe Gly Thr 85 90

Thr Leu Ile Met Leu Leu Ser Leu Ala Ala Phe Ser Val Ile Ser Val 100 105 Val Ser Tyr Leu Ile Leu Ala Leu Leu Ser Val Thr Ile Ser Phe Arg 115 120 125 Ile Tyr Lys Ser Val Ile Gln Ala Val Gln Lys Ser Glu Glu Gly His 135 140 130 Pro Phe Lys Ala Tyr Leu Asp Val Asp Ile Thr Leu Ser Ser Glu Ala 155 160 150 Phe His Asn Tyr Met Asn Ala Ala Met Val His Ile Asn Arg Ala Leu 165 170 175 Lys Leu Ile Ile Arg Leu Phe Leu Val Glu Asp Leu Val Asp Ser Leu 180 185 Lys Leu Ala Val Phe Met Trp Leu Met Thr Tyr Val Gly Ala Val Phe 200 205 Asn Gly Ile Thr Leu Leu Ile Leu Ala Glu Leu Leu Ile Phe Ser Val 215 . 220 Pro Ile Val Tyr Glu Lys Tyr Lys Thr Gln Ile Asp His Tyr Val Gly 230 235 Ile Ala Arg Asp Gln Thr Lys Ser Ile Val Glu Lys Ile Gln Ala Lys 245 250 Leu Pro Gly Ile Ala Lys Lys Lys Ala Glu 265 266 260

<210> 2331 <211> 383 <212> PRT

<213> Homo sapiens

<400> 2331 Thr Arg Met Ser Arg His Glu Gly Val Ser Cys Asp Ala Cys Leu Lys 10 Gly Asn Phe Arg Gly Arg Arg Tyr Lys Cys Leu Ile Cys Tyr Asp Tyr
20 25 30 20 25 Asp Leu Cys Ala Ser Cys Tyr Glu Ser Gly Ala Thr Thr Arg His 40 Thr Thr Asp His Pro Met Gln Cys Ile Leu Thr Arg Val Asp Phe Asp 50 60 50 55 Leu Tyr Tyr Gly Gly Glu Ala Phe Ser Val Glu Gln Pro Gln Ser Phe 65 70 75 Thr Cys Pro Tyr Cys Gly Lys Met Gly Tyr Thr Glu Thr Ser Leu Gln 85 90 Glu His Val Thr Ser Glu His Ala Glu Thr Ser Thr Glu Val Ile Cys 105 110 100 Pro Ile Cys Ala Ala Leu Pro Gly Gly Asp Pro Asn His Val Thr Asp 125 115 120 Asp Phe Ala Ala His Leu Thr Leu Glu His Arg Ala Pro Arg Asp Leu 130 135 140 Asp Glu Ser Ser Gly Val Arg His Val Arg Arg Met Phe His Pro Gly 145 150 155 Arg Gly Leu Gly Gly Pro Arg Ala Arg Arg Ser Asn Met His Phe Thr 170 175 Ser Ser Ser Thr Gly Gly Leu Ser Ser Ser Gln Ser Ser Tyr Ser Pro 185 190 180 Ser Asn Arg Glu Ala Met Asp Pro Ile Ala Glu Leu Leu Ser Gln Leu 195 200 Ser Gly Val Arg Arg Ser Ala Gly Gly Gln Leu Asn Ser Ser Gly Pro 220 215 Ser Ala Ser Gln Leu Gln Gln Leu Gln Met Gln Leu Gln Leu Glu Arg 230 235 240 Gln His Ala Gln Ala Ala Arg Gln Gln Leu Glu Thr Ala Arg Asn Ala 250

Thr Arg Arg Thr Asn Thr Ser Ser Val Thr Thr Thr Ile Thr Gln Ser 265 Thr Ala Thr Thr Asn Ile Ala Asn Thr Glu Ser Ser Gln Gln Thr Leu 280 285 Gln Asn Ser Gln Phe Leu Leu Thr Arg Leu Asn Asp Pro Lys Met Ser 295 300 Glu Thr Glu Arg Gln Ser Met Glu Ser Glu Arg Ala Asp Arg Ser Leu 310 315 Phe Val Gln Glu Leu Leu Ser Thr Leu Val Arg Glu Glu Ser Ser 325 330 Ser Ser Asp Glu Asp Asp Arg Gly Glu Met Ala Asp Phe Gly Ala Met 345 350 Gly Cys Val Asp Ile Met Pro Leu Asp Val Ala Leu Glu Asn Leu Asn 355 360 365 Leu Lys Glu Ser Asn Lys Gly Asn Glu Pro Pro Pro Pro Pro Leu 375 380

<210> 2332 <211> 334 <212> PRT <213> Homo sapiens

<400> 2332 Gly Ser Thr His Ala Ser Ala Asp Ala Trp Ala Gln Trp Phe Cys Thr 10 Glu Ala Leu Val Met Gly Ala Pro Val Trp Tyr Leu Val Ala Ala Ala 25 Leu Leu Val Gly Phe Ile Leu Phe Leu Thr Arg Ser Arg Gly Arg Ala Ala Ser Ala Gly Gln Glu Pro Leu His Asn Glu Glu Leu Ala Gly Ala 55 60 Gly Arg Val Ala Gln Pro Gly Pro Leu Glu Pro Glu Glu Pro Arg Ala 70 75 Gly Gly Arg Pro Arg Arg Arg Asp Leu Gly Ser Arg Leu Gln Ala 90 Gln Arg Arg Ala Gln Arg Val Ala Trp Ala Glu Ala Asp Glu Asn Glu 100 105 Glu Glu Ala Val Ile Leu Ala Gln Glu Glu Glu Gly Val Glu Lys Pro 125 120 . Ala Glu Thr His Leu Ser Gly Lys Ile Gly Ala Lys Lys Leu Arg Lys 135 140 Leu Glu Glu Lys Gln Ala Arg Lys Ala Gln Arg Glu Ala Glu Glu Ala 155 150 Glu Arg Glu Glu Arg Lys Arg Leu Glu Ser Gln Arg Glu Ala Glu Trp 170 165 Lys Lys Glu Glu Glu Arg Leu Arg Leu Glu Glu Glu Gln Lys Glu Glu 180 185 190 Glu Glu Arg Lys Ala Arg Glu Glu Gln Ala Gln Arg Glu His Glu Glu 200 205 Tyr Leu Lys Leu Lys Glu Ala Phe Val Val Glu Glu Glu Gly Val Gly 215 220 Glu Thr Met Thr Glu Glu Gln Ser Gln Ser Phe Leu Thr Glu Phe Ile 230 235 Asn Tyr Ile Lys Gln Ser Lys Val Val Leu Leu Glu Asp Leu Ala Ser 250 Gln Val Gly Leu Arg Thr Gln Asp Thr Ile Asn Arg Ile Gln Asp Leu 265 260 Leu Ala Glu Gly Thr Ile Thr Gly Val Ile Asp Asp Arg Gly Lys Phe 280 285 Ile Tyr Ile Thr Pro Glu Glu Leu Ala Ala Val Ala Asn Phe Ile Arg 290 295 300

Gln Arg Gly Arg Val Ser Ile Ala Glu Leu Ala Gln Ala Ser Asn Ser 305 310 315 320

Leu Ile Ala Trp Gly Arg Glu Ser Pro Ala Gln Ala Pro Ala 325 330 334

<210> 2333 <211> 392 <212> PRT <213> Homo sapiens

<400> 2333 Arg Arg Arg Trp Arg Ala Arg Gly Gly Leu Val Pro Thr Leu Ala Trp Ala Glu Ala Thr Gly Ala Tyr Val Pro Gly Arg Asp Lys Pro Asp Leu 25 Pro Thr Trp Lys Arg Asn Phe Arg Ser Ala Leu Asn Arg Lys Glu Gly 35 40 45 Leu Arg Leu Ala Glu Asp Arg Ser Lys Asp Pro His Asp Pro His Lys 55 Ile Tyr Glu Phe Val Asn Ser Gly Val Gly Asp Phe Ser Gln Pro Asp 75 70 Thr Ser Pro Asp Thr Asn Gly Gly Gly Ser Thr Ser Asp Thr Gln Glu 90 85 Asp Ile Leu Asp Glu Leu Leu Gly Asn Met Val Leu Ala Pro Leu Pro 105 100 Asp Pro Gly Pro Pro Ser Leu Ala Val Ala Pro Glu Pro Cys Pro Gln 125 115 120 Pro Leu Arg Ser Pro Ser Leu Asp Asn Pro Thr Pro Phe Pro Asn Leu 135 140 Gly Pro Ser Glu Asn Pro Leu Lys Arg Leu Leu Val Pro Gly Glu Glu 150 155 Trp Glu Phe Glu Val Thr Ala Phe Tyr Arg Gly Arg Gln Val Phe Gln 165 170 Gln Thr Ile Ser Cys Pro Glu Gly Leu Arg Leu Val Gly Ser Glu Val 190 185 180 Gly Asp Arg Thr Leu Pro Gly Trp Pro Val Thr Leu Pro Asp Pro Gly
195 200 205 195 200 205 Met Ser Leu Thr Asp Arg Gly Val Met Ser Tyr Val Arg His Val Leu 210 215 220 Ser Cys Leu Gly Gly Gly Leu Ala Leu Trp Arg Ala Gly Gln Trp Leu 235 230 Trp Ala Gln Arg Leu Gly His Cys His Thr Tyr Trp Ala Val Ser Glu 250 Glu Leu Leu Pro Asn Ser Gly His Gly Pro Asp Gly Glu Val Pro Lys 260 265 270 Asp Lys Glu Gly Gly Val Phe Asp Leu Gly Pro Phe Ile Val Gly Ser 275 280 285 280 Leu Gly Pro Pro Asp Leu Ile Thr Phe Thr Glu Gly Ser Gly Arg Ser 295 300 290 Pro Arg Tyr Ala Leu Trp Phe Cys Val Gly Glu Ser Trp Pro Gln Asp 310 315 Gln Pro Trp Thr Lys Arg Leu Val Met Val Lys Val Val Pro Thr Cys 325 330 Leu Arg Ala Leu Val Glu Met Ala Arg Val Gly Gly Ala Ser Ser Leu 340 345 Glu Asn Thr Val Asp Leu His Ile Ser Asn Ser His Pro Leu Ser Leu 360 365 Thr Ser Asp Gln Tyr Lys Ala Tyr Leu Gln Asp Leu Val Glu Gly Met 3**75** 380 Asp Phe Gln Gly Pro Gly Glu Ser

<210> 2334 <211> 414 <212> PRT <213> Homo sapiens

<400> 2334 Ala Asn Met Ala Pro Val Glu His Val Val Ala Asp Ala Gly Ala Phe Leu Arg His Ala Ala Leu Gln Asp Ile Gly Lys Asn Ile Tyr Thr Ile Arg Glu Val Val Thr Glu Ile Arg Asp Lys Ala Thr Arg Arg Arg Leu Ala Val Leu Pro Tyr Glu Leu Arg Phe Lys Glu Pro Leu Pro Glu Tyr Val Arg Leu Val Thr Glu Phe Ser Lys Lys Thr Gly Asp Tyr Pro Ser Leu Ser Ala Thr Asp Ile Gln Val Leu Ala Leu Thr Tyr Gln Leu Glu Ala Glu Phe Val Gly Val Ser His Leu Lys Gln Glu Pro Gln Lys Val 1.05 Lys Val Ser Ser Ser Ile Gln His Pro Glu Thr Pro Leu His Ile Ser 120 125 Gly Phe His Leu Pro Tyr Lys Pro Lys Pro Pro Gln Glu Thr Glu Lys Gly His Ser Ala Cys Glu Pro Glu Asn Leu Glu Phe Ser Ser Phe Met Phe Trp Arg Asn Pro Leu Pro Asn Ile Asp His Glu Leu Gln Glu Leu Leu Ile Asp Arg Gly Glu Asp Val Pro Ser Glu Glu Glu Glu Glu Glu Glu Asn Gly Phe Glu Asp Arg Lys Asp Asp Ser Asp Asp Gly Gly Gly Trp Ile Thr Pro Ser Asn Ile Lys Gln Ile Gln Gln Glu Leu Glu Gln Cys Asp Val Pro Glu Asp Val Arg Val Gly Cys Leu Thr Thr Asp Phe Ala Met Gln Asn Val Leu Leu Gln Met Gly Leu His Val Leu Ala Val Asn Gly Met Leu Ile Arg Glu Ala Arg Ser Tyr Ile Leu Arg Cys His Gly Cys Phe Lys Thr Thr Ser Asp Met Ser Arg Val Phe Cys Ser His Cys Gly Asn Lys Thr Leu Lys Lys Val Ser Val Thr Val Ser Asp Asp Gly Thr Leu His Met His Phe Ser Arg Asn Pro Lys Val Leu Asn Pro Arg Gly Leu Arg Tyr Ser Leu Pro Thr Pro Lys Gly Gly Lys Tyr Ala Ile Asn Pro His Leu Thr Glu Asp Gln Arg Phe Pro Gln Leu Arg Leu Ser Gln Lys Ala Arg Gln Lys Thr Asn Val Phe Ala Pro Asp Tyr Ile Ala Gly Val Ser Pro Phe Val Glu Asn Asp Ile Ser Ser Arg Ser Ala Thr Leu Gln Val Arg Asp Ser Thr Leu Gly Ala Gly Arg Arg Arg Leu Asn Pro Asn Ala Ser Arg Lys Lys Phe Val Lys Lys Arg

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<210> 2335 <211> 59 <212> PRT <213> Homo sapiens

<400> 2335 Arg Arg Asn Asn Ile Arg Gln Phe Ile Met Lys Val Cys Ile Ser Gly 10 Gln Ala Arg Trp Leu Thr Pro Val Val Pro Val Leu Trp Glu Thr Glu 20 25 Ala Gly Arg Ser Leu Glu Leu Lys Ser Leu Arg Pro Ala Trp Ala Thr 40 Trp Gly Asn Pro Ile Ser Thr Lys Ile Asn Lys

<210> 2336 <211> 361 <212> PRT <213> Homo sapiens

<400> 2336 Lys Met Asn Pro Thr Asp Ile Ala Asp Thr Thr Leu Asp Glu Ser Ile 10 5 Tyr Ser Asn Tyr Tyr Leu Tyr Glu Ser Ile Pro Lys Pro Cys Thr Lys 20 25 30 Glu Gly Ile Lys Ala Phe Gly Glu Leu Phe Leu Pro Pro Leu Tyr Ser 35 40 Leu Val Phe Val Phe Gly Leu Leu Gly Asn Ser Val Val Leu Val 60 55 Leu Phe Lys Tyr Lys Arg Leu Arg Ser Met Thr Asp Val Tyr Leu Leu 75 70 Asn Leu Ala Ile Ser Asp Leu Leu Phe Val Phe Ser Leu Pro Phe Trp 85 90 95 Gly Tyr Tyr Ala Ala Asp Gln Trp Val Phe Gly Leu Gly Leu Cys Lys
100 105 110 Met Ile Ser Trp Met Tyr Leu Val Gly Phe Tyr Ser Gly Ile Phe Phe 115 120 125 Val Met Leu Met Ser Ile Asp Arg Tyr Leu Ala Ile Val His Ala Val 140 135 Phe Ser Leu Arg Ala Arg Thr Leu Thr Tyr Gly Val Ile Thr Ser Leu 155 150 Ala Thr Trp Ser Val Ala Val Phe Ala Ser Leu Pro Gly Phe Leu Phe 165 170 175 Ser Thr Cys Tyr Thr Glu Arg Asn His Thr Tyr Cys Lys Thr Lys Tyr 180 185 190 Ser Leu Asn Ser Thr Thr Trp Lys Val Leu Ser Ser Leu Glu Ile Asn 195 200 Ile Leu Gly Leu Val Ile Pro Leu Gly Ile Met Leu Phe Cys Tyr Ser 215 220 Met Ile Ile Arg Thr Leu Gln His Cys Lys Asn Glu Lys Lys Asn Lys 230 235 240 Ala Val Lys Met Ile Phe Ala Val Val Leu Phe Leu Gly Phe Trp
245 250 255 Thr Pro Tyr Asn Ile Val Leu Phe Leu Glu Thr Leu Val Glu Leu Glu 260 265 270 Val Leu Gln Asp Cys Thr Phe Glu Arg Tyr Leu Asp Tyr Ala Ile Gln 275 280 285 Ala Thr Glu Thr Leu Ala Phe Val His Cys Cys Leu Asn Pro Ile Ile 295

Tyr Phe Phe Leu Gly Glu Lys Phe Arg Lys Tyr Ile Leu Gln Leu Phe 305

Lys Thr Cys Arg Gly Leu Phe Val Leu Cys Gln Tyr Cys Gly Leu Leu 325

Gln Ile Tyr Ser Ala Asp Thr Pro Ser Ser Ser Tyr Thr Gln Ser Thr 340

Met Asp His Asp Leu His Asp Ala Leu 360 361

<210> 2337 <211> 155 <212> PRT <213> Homo sapiens

<400> 2337 Ser Leu Ser Ala Met Arg Phe Leu Ala Ala Thr Phe Leu Leu Leu Ala 10 Leu Ser Thr Ala Ala Gln Ala Glu Pro Val Gln Phe Lys Asp Cys Gly 20 25 Ser Val Asp Gly Val Ile Lys Glu Val Asn Val Ser Pro Cys Pro Thr 35 40 Gln Pro Cys Gln Leu Ser Lys Gly Gln Ser Tyr Ser Val Asn Val Thr 50 55 60 Phe Thr Ser Asn Ile Gln Ser Lys Ser Ser Lys Ala Val Val His Gly 70 75 Ile Leu Met Gly Val Pro Val Pro Phe Pro Ile Pro Glu Pro Asp Gly 90 Cys Lys Ser Gly Ile Asn Cys Pro Ile Gln Lys Asp Lys Thr Tyr Ser 100 105 Tyr Leu Asn Lys Leu Pro Val Lys Ser Glu Tyr Pro Ser Ile Lys Leu 125 115 120 Val Val Glu Trp Gln Leu Gln Asp Asp Lys Asn Gln Ser Leu Phe Cys 135 Trp Glu Ile Pro Val Gln Ile Val Ser His Leu

<210> 2338 <211> 294 <212> PRT <213> Homo sapiens

<400> 2338 Val Ile Lys Met Ala Leu Ala Ala Arg Leu Leu Pro Gln Phe Leu His 10 Ser Arg Ser Leu Pro Cys Gly Ala Val Arg Leu Arg Thr Pro Ala Val Ala Glu Val Arg Leu Pro Ser Ala Thr Leu Cys Tyr Phe Cys Arg Cys 35 45 40 Arg Leu Gly Leu Gly Ala Ala Leu Phe Pro Arg Ser Ala Arg Ala Leu 55 Ala Ala Ser Ala Leu Pro Ala Gln Gly Ser Arg Trp Pro Val Leu Ser 75 Ser Pro Gly Leu Pro Ala Ala Phe Ala Ser Phe Pro Ala Cys Pro Gln 85 90 Arg Ser Tyr Ser Thr Glu Glu Lys Pro Gln Gln His Gln Lys Thr Lys 100 105 110 Met Ile Val Leu Gly Phe Ser Asn Pro Ile Asn Trp Val Arg Thr Arg 120 125

Ile Lys Ala Phe Leu Ile Trp Ala Tyr Phe Asp Lys Glu Phe Ser Ile 140 135 Thr Glu Phe Ser Glu Gly Ala Lys Gln Ala Phe Ala His Val Ser Lys 155 150 Leu Leu Ser Gln Cys Lys Phe Asp Leu Leu Glu Glu Leu Val Ala Lys 175 170 165 Glu Val Leu His Ala Leu Lys Glu Lys Val Thr Ser Leu Pro Asp Asn 190 180 185 His Lys Asn Ala Leu Ala Ala Asn Ile Asp Glu Ile Val Phe Thr Ser 195 200 205 Thr Gly Asp Ile Ser Ile Tyr Tyr Asp Glu Lys Gly Arg Lys Phe Val 215 220 210 Asn Ile Leu Met Cys Phe Trp Tyr Leu Thr Ser Ala Asn Ile Pro Ser 230 235 Glu Thr Leu Arg Gly Ala Ser Val Phe Gln Val Lys Leu Gly Asn Gln 245 250 Asn Val Glu Thr Lys Gln Leu Leu Ser Ala Ser Tyr Glu Phe Gln Arg 265 260 Glu Phe Thr Gln Gly Val Lys Pro Asp Trp Thr Ile Ala Arg Ile Glu 280 His Ser Lys Leu Leu Glu 294

<210> 2339 <211> 39 <212> PRT <213> Homo sapiens

<210> 2340 <211> 301 <212> PRT <213> Homo sapiens

<400> 2340 Ala Ser Pro Phe Leu Arg Pro Gln Gly His Asp Ser Gly Glu Arg Glu 10 5 Pro Phe Ser Gln Thr Pro Gly Leu Met Gln Pro Phe Ser Ile Pro Val 20 25 Gln Ile Thr Leu Gln Gly Ser Arg Arg Arg Gln Gly Arg Thr Ala Phe 40 Pro Ala Ser Gly Lys Lys Arg Glu Thr Asp Tyr Ser Asp Gly Asp Pro 55 Leu Asp Val His Lys Arg Leu Pro Ser Ser Thr Gly Glu Asp Arg Ala 70 75 Val Met Leu Gly Phe Ala Met Met Gly Phe Ser Val Leu Met Phe Phe 85 90 Leu Leu Gly Thr Thr Ile Leu Lys Pro Phe Met Leu Ser Ile Gln Arg 105 110 100 Glu Glu Ser Thr Cys Thr Ala Ile His Thr Asp Ile Met Asp Asp Trp 115

Leu Asp Cys Ala Phe Thr Cys Gly Val His Cys His Gly Gln Gly Lys 135 140 Tyr Pro Cys Leu Gln Val Phe Val Asn Leu Ser His Pro Gly Gln Lys 145 150 155 Ala Leu Leu His Tyr Asn Glu Glu Ala Val Gln Ile Asn Pro Lys Cys 165 170 175 Phe Tyr Thr Pro Lys Cys His Gln Asp Arg Asn Asp Leu Leu Asn Ser 185 Ala Leu Asp Ile Lys Glu Phe Phe Asp His Lys Asn Gly Thr Pro Phe 195 200 205 200 195 Ser Cys Phe Tyr Ser Pro Ala Ser Gln Ser Glu Asp Val Ile Leu Ile 210 215 220 Lys Lys Tyr Asp Gln Met Ala Ile Phe His Cys Leu Phe Trp Pro Ser 230 235 Leu Thr Leu Leu Gly Gly Ala Leu Ile Val Gly Met Val Arg Leu Thr 245 250 Gln His Leu Ser Leu Leu Cys Glu Lys Tyr Ser Thr Val Val Arg Asp 265 270 260 Glu Val Gly Gly Lys Val Pro Tyr Ile Glu Gln His Gln Phe Lys Leu 275 280 285 Cys Ile Met Arg Arg Ser Lys Gly Arg Ala Glu Lys Ser 295

<210> 2341 <211> 303 <212> PRT <213> Homo sapiens

<400> 2341 Ser Ser Val Val Glu Phe Ser Ala Leu Ser Val Ser Met Ala Cys Leu 5 10 Ser Pro Ser Gln Leu Gln Lys Phe Gln Gln Asp Gly Phe Leu Val Leu 20 25 Glu Gly Phe Leu Ser Ala Glu Glu Cys Val Ala Met Gln Gln Arg Ile 35 40 45 Gly Glu Ile Val Ala Glu Met Asp Val Pro Leu His Cys Arg Thr Glu 55 60 Phe Ser Thr Gln Glu Glu Gln Leu Arg Ala Gln Gly Ser Thr Asp 70 75 Tyr Phe Leu Ser Ser Gly Asp Lys Ile Arg Phe Phe Phe Glu Lys Gly 85 90 95 Val Phe Asp Glu Lys Gly Asn Phe Leu Val Pro Pro Glu Lys Ser Ile 100 105 110 Asn Lys Ile Gly His Ala Leu His Ala His Asp Pro Val Phe Lys Ser 120 Ile Thr His Ser Phe Lys Val Gln Thr Leu Ala Arg Ser Leu Gly Leu 135 140 Gln Met Pro Val Val Val Gln Ser Met Tyr Ile Phe Lys Gln Pro His 150 155 Phe Gly Gly Glu Val Ser Pro His Gln Asp Ala Ser Phe Leu Tyr Thr 165 170 175 165 Glu Pro Leu Gly Arg Val Leu Gly Val Trp Ile Ala Val Glu Asp Ala 180 190 185 Thr Leu Glu Asn Gly Cys Leu Trp Phe Ile Pro Gly Ser His Thr Ser 195 200 205 Gly Val Ser Arg Arg Met Val Arg Ala Pro Val Gly Ser Ala Pro Gly 215 Thr Ser Phe Leu Gly Ser Glu Pro Ala Arg Asp Asn Ser Leu Phe Val 235 230 Pro Thr Pro Val Gln Arg Gly Ala Leu Val Leu Ile His Gly Glu Val 245 250

Val His Lys Ser Lys Gln Asn Leu Ser Asp Arg Ser Arg Gln Ala Tyr
260 265 270

Thr Phe His Leu Met Glu Ala Ser Gly Thr Thr Trp Ser Pro Glu Asn
275 280 285

Trp Leu Gln Pro Thr Ala Glu Leu Pro Phe Pro Gln Leu Tyr Thr
290 295 300 303

<210> 2342 <211> 301 <212> PRT <213> Homo sapiens

<400> 2342 Met Ala Leu Ser Gly Asn Cys Ser Arg Tyr Tyr Pro Arg Glu Gln Gly
1 5 10 15 Ser Ala Val Pro Asn Ser Phe Pro Glu Val Val Glu Leu Asn Val Gly 20 . 25 30 Gly Gln Val Tyr Phe Thr Arg His Ser Thr Leu Ile Ser Ile Pro His 35 40 45Ser Leu Leu Trp Lys Met Phe Ser Pro Lys Arg Asp Thr Ala Asn Asp 55 60 Leu Ala Lys Asp Ser Lys Gly Arg Phe Phe Ile Asp Arg Asp Gly Phe 70 Leu Phe Arg Tyr Ile Leu Asp Tyr Leu Arg Asp Arg Gln Val Val Leu 90 85 Pro Asp His Phe Pro Glu Lys Gly Arg Leu Lys Arg Glu Ala Glu Tyr 100 105 110 Phe Gln Leu Pro Asp Leu Val Lys Leu Leu Thr Pro Asp Glu Ile Lys 115 120 125 Gln Ser Pro Asp Glu Phe Cys His Ser Asp Phe Glu Asp Ala Ser Gln 135 140 Gly Ser Asp Thr Arg Ile Cys Pro Pro Ser Ser Leu Leu Pro Ala Asp 150 155 Arg Lys Trp Gly Phe Ile Thr Val Gly Tyr Arg Gly Ser Cys Thr Leu 165 170 175 Gly Arg Glu Gly Gln Ala Asp Ala Lys Phe Arg Arg Val Pro Arg Ile 180 . 185 190 Leu Val Cys Gly Arg Ile Ser Leu Ala Lys Glu Val Phe Gly Glu Thr 200 205 195 Leu Asn Glu Ser Arg Asp Pro Asp Arg Ala Pro Glu Arg Tyr Thr Ser 215 220 Arg Phe Tyr Leu Lys Phe Lys His Leu Met Gly Ala Pro Ala Ser Asn 225 230 235 240 230 235 Phe Ile Leu Gly Phe Trp Gly Leu Gly Gln Asn Gln Asp Lys His Pro 250 255 245 Val Asn Ile Tyr Leu Gln Gln Arg Ser Val Ile Arg Pro Asp Leu Thr 260 265 270 Ser Lys Lys Ala Gly Asp Leu Lys Gly Lys Gly Asp Ala Gln Glu Val 275 280 285 Ser Arg Arg Arg Trp Leu Gly Asp Pro Glu His Leu 295

<210> 2343 <211> 931 <212> PRT <213> Homo sapiens

<400> 2343

Met Arg Met Gln Arg His Lys Asn Asp Thr Met Asp Phe Gly Asp Ser 10 Gly Lys Arg Ile Gly Gly Gly Val Leu Cys Leu Leu His Gln Ser Asn 20 Thr Ser Phe Ile Lys Leu Asn Asn Gly Phe Glu Asp Ile Val Ile Val Ile Asp Pro Ser Val Pro Glu Asp Glu Lys Ile Ile Glu Gln Ile 60 Glu Asp Met Val Thr Thr Ala Ser Thr Tyr Leu Phe Glu Ala Thr Glu 70 75 Lys Arg Phe Phe Phe Lys Asn Val Ser Ile Leu Ile Pro Glu Asn Trp Lys Glu Asn Pro Gln Tyr Lys Arg Pro Lys His Glu Asn His Lys His 100 105 Ala Asp Val Ile Val Ala Pro Pro Thr Leu Pro Gly Arg Asp Glu Pro 120 125 Tyr Thr Lys Gln Phe Thr Glu Cys Gly Glu Lys Gly Glu Tyr Ile His 135 140 Phe Thr Pro Asp Leu Leu Gly Lys Lys Gln Asn Glu Tyr Gly Pro 155 150 Pro Gly Lys Leu Phe Val His Glu Trp Ala His Leu Arg Trp Gly Val 165 170 175 Phe Asp Glu Tyr Asn Glu Asp Gln Pro Phe Tyr Arg Ala Lys Ser Lys 180 185 Lys Ile Glu Ala Thr Arg Cys Ser Ala Gly Ile Ser Gly Arg Asn Arg 200 195 Val Tyr Lys Cys Gln Gly Gly Ser Cys Leu Ser Arg Ala Cys Arg Ile 215 220 Asp Ser Thr Thr Lys Leu Tyr Gly Lys Asp Cys Gln Phe Phe Pro Asp 235 Lys Val Gln Thr Glu Lys Ala Ser Ile Met Phe Met Gln Ser Ile Asp 245 250 Ser Val Val Glu Phe Cys Asn Glu Lys Thr His Asn Gln Glu Ala Pro 270 260 265 Ser Leu Gln Asn Ile Lys Cys Asn Phe Arg Ser Thr Trp Glu Val Ile 280 285 Ser Asn Ser Glu Asp Phe Lys Asn Thr Ile Pro Met Val Thr Pro Pro 295 300 Pro Pro Pro Val Phe Ser Leu Leu Lys Ile Arg Gln Arg Ile Val Cys 310 315 Leu Val Leu Asp Lys Ser Gly Ser Met Gly Gly Lys Asp Arg Leu Asn 325 330 Arg Met Asn Gln Ala Ala Lys His Phe Leu Leu Gln Thr Val Glu Asn 345 Gly Ser Trp Val Gly Met Val His Phe Asp Ser Thr Ala Thr Ile Val 360 Asn Lys Leu Ile Gln Ile Lys Ser Ser Asp Glu Arg Asn Thr Leu Met 380 375 Ala Gly Leu Pro Thr Tyr Pro Leu Gly Gly Thr Ser Ile Cys Ser Gly 395 390 Ile Lys Tyr Ala Phe Gln Val Ile Gly Glu Leu His Ser'Gln Leu Asp 410 . 405 Gly Ser Glu Val Leu Leu Thr Asp Gly Glu Asp Asn Thr Ala Ser 425 Ser Cys Ile Asp Glu Val Lys Gln Ser Gly Ala Ile Val His Phe Ile Ala Leu Gly Arg Ala Ala Asp Glu Ala Val Ile Glu Met Ser Lys Ile 460 455 Thr Gly Gly Ser His Phe Tyr Val Ser Asp Glu Ala Gln Asn Asn Gly 470 475 Leu Ile Asp Ala Phe Gly Ala Leu Thr Ser Gly Asn Thr Asp Leu Ser 490 Gln Lys Ser Leu Gln Leu Glu Ser Lys Gly Leu Thr Leu Asn Ser Asn

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Ala Trp Met Asn Asp Thr Val Ile Ile Asp Ser Thr Val Gly Lys Asp
                      520
Thr Phe Phe Leu Ile Thr Trp Asn Ser Leu Pro Pro Ser Ile Ser Leu
                             540
                  535
Trp Asp Pro Ser Gly Thr Ile Met Glu Asn Phe Thr Val Asp Ala Thr
        550
                             555
545
Ser Lys Met Ala Tyr Leu Ser Ile Pro Gly Thr Ala Lys Val Gly Thr
                                 -
575
       565 570
Trp Ala Tyr Asn Leu Gln Ala Lys Ala Asn Pro Glu Thr Leu Thr Ile
              585 590
Thr Val Thr Ser Arg Ala Ala Asn Ser Ser Val Pro Pro Ile Thr Val
                      600 605
Asn Ala Lys Met Asn Lys Asp Val Asn Ser Phe Pro Ser Pro Met Ile
                                 620
         615
Val Tyr Ala Glu Ile Leu Gln Gly Tyr Val Pro Val Leu Gly Ala Asn
                               635
              630
Val Thr Ala Phe Ile Glu Ser Gln Asn Gly His Thr Glu Val Leu Glu
                  650
            645
Leu Leu Asp Asn Gly Ala Gly Ala Asp Ser Phe Lys Asn Asp Gly Val
                  665 670
         660
Tyr Ser Arg Tyr Phe Thr Ala Tyr Thr Glu Asn Gly Arg Tyr Ser Leu
                               685
                      680
    675
Lys Val Arg Ala His Gly Gly Ala Asn Thr Ala Arg Leu Lys Leu Arg
                                   700
                   695
Pro Pro Leu Asn Arg Ala Ala Tyr Ile Pro Gly Trp Val Val Asn Gly
                               715
               710
Glu Ile Glu Ala Asn Pro Pro Arg Pro Glu Ile Asp Glu Asp Thr Gln
           725 730
Thr Thr Leu Glu Asp Phe Ser Arg Thr Ala Ser Gly Gly Ala Phe Val
         740 . 745
Val Ser Gln Val Pro Ser Leu Pro Leu Pro Asp Gln Tyr Pro Pro Ser
                                    765
     755
                      760
Gln Ile Thr Asp Leu Asp Ala Thr Val His Glu Asp Lys Ile Ile Leu
                   775
                                   780
Thr Trp Thr Ala Pro Gly Asp Asn Phe Asp Val Gly Lys Val Gln Arg
          790
                     795
Tyr Ile Ile Arg Ile Ser Ala Ser Ile Leu Asp Leu Arg Asp Ser Phe
             805
                            810
Asp Asp Ala Leu Gln Val Asn Thr Thr Asp Leu Ser Pro Lys Glu Ala
          820 825
Asn Ser Lys Glu Ser Phe Ala Phe Lys Pro Glu Asn Ile Ser Glu Glu
                                       845
                      840
Asn Ala Thr His Ile Phe Ile Ala Ile Lys Ser Ile Asp Lys Ser Asn
                  855
                                  860
Leu Thr Ser Lys Val Ser Asn Ile Ala Gln Val Thr Leu Phe Ile Pro
                                875
              870
Gln Ala Asn Pro Asp Asp Ile Asp Pro Thr Pro Thr Pro Thr
                     890
           885
Pro Thr Pro Asp Lys Ser His Asn Ser Gly Val Asn Ile Ser Thr Leu
                                          910
                905
         900
 Val Leu Ser Val Ile Gly Ser Val Val Ile Val Asn Phe Ile Leu Ser
                       920
 Thr Thr Ile
    930 931
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<210> 2344 <211> 137 <212> PRT <213> Homo sapiens

<400> 2344

Ile Asn Ser Ser Pro Arg Thr Gly Arg Asp His Gln Glu Leu Asn Leu 10 His Thr Glu Arg Asp Ser Arg Ser Gln Arg Ala Val Leu Lys Ile Pro 20 25 Arg Gln Asn Pro Gly Ile Phe Tyr Trp Ile Phe Leu Pro Ser Arg Ser 40 His Ser Ala Ser His Gly Ser Arg Gln Arg Gln Val Ser Cys Gln Gly 55 60 Thr Gln Asp Glu Ile Leu Lys Met Arg Asn Thr Phe Ala Glu Leu Lys 70 75 Asn Ser Leu Glu Ala Leu Ser Ser Arg Met Asp Gln Ala Glu Glu Arg 85 Ile Gly Thr Gln Ala Gly Val Gln Trp Arg Asp His Gly Ser Leu Gln 100 105 Pro Gln Pro Pro Glu Phe Lys Gln Cys Phe His Leu Ser Leu Pro Ser 120 Ser Trp Asp Tyr Arg Ala Cys Leu Ser 135 137

<210> 2345 <211> 1076 <212> PRT <213> Homo sapiens

<400> 2345 Ala Trp Arg Lys Ser Ser Val Val Pro Pro Arg Gly Thr Arg Arg Gly 10 Glu Lys Ser Asp Gln Asp Lys Ser Gly Gln Lys Asn Lys Arg Asp Phe 20 25 Leu Ser Met Lys Gln Ser Pro Ala Leu Ala Pro Glu Glu Arg Cys Arg 40 Arg Ala Gly Ser Pro Lys Pro Val Leu Arg Ala Asp Asp Asn Asn Met Gly Asn Gly Cys Ser Gln Lys Leu Ala Thr Ala Asn Leu Leu Arg Phe 70 75 Leu Leu Val Leu Ile Pro Cys Ile Cys Ala Leu Val Leu Leu Leu 90 85 Glu Ile Leu Leu Ser Tyr Val Gly Thr Leu Gln Lys Val Tyr Phe Lys 100 105 Ser Asn Gly Ser Glu Pro Leu Val Thr Asp Gly Glu Ile Gln Gly Ser 120 125 Asp Val Ile Leu Thr Asn Thr Ile Tyr Asn Gln Ser Thr Val Val Ser 135 140 Thr Ala His Pro Asp Gln His Val Pro Ala Trp Thr Thr Asp Ala Ser .155 160 150 Leu Pro Gly Asp Gln Ser His Arg Asn Thr Ser Ala Cys Met Asn Ile 170 Thr His Ser Gln Cys Gln Met Leu Pro Tyr His Ala Thr Leu Thr Pro 185 Leu Leu Ser Val Val Arg Asn Met Glu Met Glu Lys Phe Leu Lys Phe 200 205 Phe Thr Tyr Leu His Arg Leu Ser Cys Tyr Gln His Ile Met Leu Phe 215 220 Gly Cys Thr Leu Ala Phe Pro Glu Cys Ile Ile Asp Gly Asp Asp Ser 230 235 His Gly Leu Leu Pro Cys Arg Ser Phe Cys Glu Ala Ala Lys Glu Gly 245 250 Cys Glu Ser Val Leu Gly Met Val Asn Tyr Ser Trp Pro Asp Phe Leu 265 270 Arg Cys Ser Gln Phe Arg Asn Gln Thr Glu Ser Ser Asn Val Ser Arg 280

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Ile Cys Phe Ser Pro Gln Gln Glu Asn Gly Lys Gln Leu Leu Cys Gly
                                         300
                      295
Arg Gly Glu Asn Phe Leu Cys Ala Ser Gly Ile Cys Ile Pro Gly Lys
                                    315
                310
Leu Gln Cys Asn Gly Tyr Asn Asp Cys Asp Asp Trp Ser Asp Glu Ala
                                330 .
             325
His Cys Asn Cys Ser Glu Asn Leu Phe His Cys His Thr Gly Lys Cys
                     345
         340
Leu Asn Tyr Ser Leu Val Cys Asp Gly Tyr Asp Asp Cys Gly Asp Leu
                                            365
                         360
      355
Ser Asp Glu Gln Asn Cys Asp Cys Asn Pro Thr Thr Glu His Arg Cys
                                         380
                     375
Gly Asp Gly Arg Cys Ile Ala Met Glu Trp Val Cys Asp Gly Asp His
                                  395
                  390
Asp Cys Val Asp Lys Ser Asp Glu Val Asn Cys Ser Cys His Ser Gln
                                 410
Gly Leu Val Glu Cys Arg Asn Gly Gln Cys Ile Pro Ser Thr Phe Gln
                              425
                                      430
          420
Cys Asp Gly Asp Glu Asp Cys Lys Asp Gly Ser Asp Glu Glu Asn Cys
                                            445
                         440
       435
Ser Val Ile Gln Thr Ser Cys Gln Glu Gly Asp Gln Arg Cys Leu Tyr
                      455
Asn Pro Cys Leu Asp Ser Cys Gly Gly Ser Ser Leu Cys Asp Pro Asn
                                    475
                  470
Asn Ser Leu Asn Asn Cys Ser Gln Cys Glu Pro Ile Thr Leu Glu Leu
                                 490
              485
Cys Met Asn Leu Pro Tyr Asn Ser Thr Ser Tyr Pro Asn Tyr Phe Gly
                             505 510
         500
His Arg Thr Gln Lys Glu Ala Ser Ile Ser Trp Glu Ser Ser Leu Phe
                         520
                                   525
Pro Ala Leu Val Gln Thr Asn Cys Tyr Lys Tyr Leu Met Phe Phe Ser
                                         540
                     535
Cys Thr Ile Leu Val Pro Lys Cys Asp Val Asn Thr Gly Glu His Ile
                                    555
                  550
Pro Pro Cys Arg Ala Leu Cys Glu His Ser Lys Glu Arg Cys Glu Ser
                        570
              565
Val Leu Gly Ile Val Gly Leu Gln Trp Pro Glu Asp Thr Asp Cys Ser
                             585
Gln Phe Pro Glu Glu Asn Ser Asp Asn Gln Thr Cys Leu Met Pro Asp
                                            605
                         600
Glu Tyr Val Glu Glu Cys Ser Pro Ser His Phe Lys Cys Arg Ser Gly
                                        620
                      615
Gln Cys Val Leu Ala Ser Arg Arg Cys Asp Gly Gln Ala Asp Cys Asp
                                   635
                  630
Asp Asp Ser Asp Glu Glu Asn Cys Gly Cys Lys Glu Arg Asp Leu Trp
                                  650
              645
Glu Cys Pro Ser Asn Lys Gln Cys Leu Lys His Thr Val Ile Cys Asp
                             665
Gly Phe Pro Asp Cys Pro Asp Tyr Met Asp Glu Lys Asn Cys Ser Phe
                           680
                                            685
Cys Gln Asp Asp Glu Leu Glu Cys Ala Asn His Ala Cys Val Ser Arg
                                        700
                      695
Asp Leu Trp Cys Asp Gly Glu Ala Asp Cys Ser Asp Ser Ser Asp Glu
                                     715
                   710
 Trp Asp Cys Val Thr Leu Ser Ile Asn Val Asn Ser Ser Ser Phe Leu 725 730 735
Met Val His Arg Ala Ala Thr Glu His His Val Cys Ala Asp Gly Trp
740 745 750
                              745 750
            740
 Gln Glu Ile Leu Ser Gln Leu Ala Cys Lys Gln Met Gly Leu Gly Glu
                                             765
                          760
        755
 Pro Ser Val Thr Lys Leu Ile Gln Glu Gln Glu Lys Glu Pro Arg Trp
                                         780
                      775
 Leu Thr Leu His Ser Asn Trp Glu Ser Leu Asn Gly Thr Thr Leu His
                   790
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Glu Leu Leu Val Asn Gly Gln Ser Cys Glu Ser Arg Ser Lys Ile Ser 805 810 815 Leu Leu Cys Thr Lys Gln Asp Cys Gly Arg Arg Pro Ala Ala Arg Met 825 Asn Lys Arg Ile Leu Gly Gly Arg Thr Ser Arg Pro Gly Arg Trp Pro 840 845 Trp Gln Cys Ser Leu Gln Ser Glu Pro Ser Gly His Ile Cys Gly Cys 860 855 Val Leu Ile Ala Lys Lys Trp Val Leu Thr Val Ala His Cys Phe Glu 870 875 Gly Arg Glu Asn Ala Ala Val Trp Lys Val Val Leu Gly Ile Asn Asn 885 890 Leu Asp His Pro Ser Val Phe Met Gln Thr Arg Phe Val Lys Thr Ile 900 905 910 Ile Leu His Pro Arg Tyr Ser Arg Ala Val Val Asp Tyr Asp Ile Ser 915 920 925 915 920 925 Ile Val Glu Leu Ser Glu Asp Ile Ser Glu Thr Gly Tyr Val Arg Pro 930 935 940 Val Cys Leu Pro Asn Pro Glu Gln Trp Leu Glu Pro Asp Thr Tyr Cys 950 955 Tyr Ile Thr Gly Trp Gly His Met Gly Asn Lys Met Pro Phe Lys Leu 965 970 975 Gln Glu Gly Glu Val Arg Ile Ile Ser Leu Glu His Cys Gln Ser Tyr 985 980 990 Phe Asp Met Lys Thr Ile Thr Thr Arg Met Ile Cys Ala Gly Tyr Glu 995 1000 1005 Ser Gly Thr Val Asp Ser Cys Met Gly Asp Ser Gly Gly Pro Leu Val 1010 1015 1020 Cys Glu Lys Pro Gly Gly Arg Trp Thr Leu Phe Gly Leu Thr Ser Trp 1025 1030 1035 1040 Gly Ser Val Cys Phe Ser Lys Val Leu Gly Pro Gly Val Tyr Ser Asn 1045 1050 1055 Val Ser Tyr Phe Val Glu Trp Ile Lys Arg Gln Ile Tyr Ile Gln Thr 1060 1065 Phe Leu Leu Asn 10751076

<210> 2346 <211> 962 <212> PRT <213> Homo sapiens

<400> 2346 Lys Val Ile Leu Ser Ser Glu Met Ser Lys Thr Asn Lys Ser Lys Ser 1 5 10 15 Gly Ser Arg Ser Ser Arg Ser Arg Ser Ala Ser Arg Ser Arg Ser Arg 20 25 Ser Phe Ser Lys Ser Arg Ser Arg Ser Arg Ser Leu Ser Arg Ser Arg 35 40 45 Lys Arg Arg Leu Ser Ser Arg Ser Arg Ser Arg Ser Tyr Ser Pro Ala 55 His Asn Arg Glu Arg Asn His Pro Arg Val Tyr Gln Asn Arg Asp Phe 70 75 Arg Gly His Asn Arg Gly Tyr Arg Arg Pro Tyr Tyr Phe Arg Gly Arg 85 90 Asn Arg Gly Phe Tyr Pro Trp Gly Gln Tyr Asn Arg Gly Gly Tyr Gly 105 110 Asn Tyr Arg Ser Asn Trp Gln Asn Tyr Arg Gln Ala Tyr Ser Pro Arg 115 120 125 Arg Gly Arg Ser Arg Ser Arg Ser Pro Lys Arg Arg Ser Pro Ser Pro 130 135 140

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Arg Ser Arg Ser His Ser Arg Asn Ser Asp Lys Ser Ser Ser Asp Arg
                                 155
                 150
Ser Arg Arg Ser Ser Ser Ser Arg Ser Ser Ser Asn His Ser Arg Val
                                       · 175
                            170
             165
Glu Ser Ser Lys Arg Lys Ser Ala Lys Glu Lys Lys Ser Ser Ser Lys
                           185
          180
Asp Ser Arg Pro Ser Gln Ala Ala Gly Asp Asn Gln Gly Asp Glu Val
                        200
                                    205
      195
Lys Glu Gln Thr Phe Ser Gly Gly Thr Ser Gln Asp Thr Lys Ala Ser
                    215
                                      220
Glu Ser Ser Lys Pro Trp Pro Asp Ala Thr Tyr Gly Thr Gly Ser Ala
             230
                          235
Ser Arg Ala Ser Ala Val Ser Glu Leu Ser Pro Arg Glu Arg Ser Pro
                    250
             245
Ala Leu Lys Ser Pro Leu Gln Ser Val Val Val Arg Arg Ser Pro
                   265 270
         260
Arg Pro Ser Pro Val Pro Lys Pro Ser Pro Pro Leu Ser Ser Thr Ser
                                   285
                        280
       275
Gln Met Gly Ser Thr Leu Pro Ser Gly Ala Gly Tyr Gln Ser Gly Thr
                                      300
                    295
His Gln Gly Gln Phe Asp His Gly Ser Gly Ser Leu Ser Pro Ser Lys
                           315
                310
Lys Ser Pro Val Gly Lys Ser Pro Pro Ser Thr Gly Ser Thr Tyr Gly
                       330
            325
Ser Ser Gln Lys Glu Glu Ser Ala Ala Ser Gly Gly Ala Ala Tyr Thr
                           345
         340
Lys Arg Tyr Leu Glu Glu Gln Lys Thr Glu Asn Gly Lys Asp Lys Glu
                                         365
       355 360
Gln Lys Gln Thr Asn Thr Asp Lys Glu Lys Ile Lys Glu Lys Gly Ser
           3 7 5
                                       380
Phe Ser Asp Thr Gly Leu Gly Asp Gly Lys Met Lys Ser Asp Ser Phe
                                  395
                 390
Ala Pro Lys Thr Asp Ser Glu Lys Pro Phe Arg Gly Ser Gln Ser Pro
                   · 410
             405
Lys Arg Tyr Lys Leu Arg Asp Asp Phe Glu Lys Lys Met Ala Asp Phe
                            425
          420
His Lys Glu Glu Met Asp Asp Gln Asp Lys Asp Lys Ala Lys Gly Arg
                                          445
                        440
Lys Glu Ser Glu Phe Asp Asp Glu Pro Lys Phe Met Ser Lys Val Ile
                                       460
                     455
Gly Ala Asn Lys Asn Gln Glu Glu Lys Ser Gly Lys Trp Glu Gly
                                   475
            470
Leu Val Tyr Ala Pro Pro Gly Lys Glu Lys Gln Arg Lys Thr Glu Glu
                             490
              485
Leu Glu Glu Glu Ser Phe Pro Glu Arg Ser Lys Lys Glu Asp Arg Gly
                                             510
                           505
           500
Lys Arg Ser Glu Gly Gly His Arg Gly Phe Val Pro Glu Lys Asn Phe
                                  525
                        520
Arg Val Thr Ala Tyr Lys Ala Val Gln Glu Lys Ser Ser Ser Pro Pro
                    535
Pro Arg Lys Thr Ser Glu Ser Arg Asp Lys Leu Gly Ala Lys Gly Asp
                                   555
                 550
Phe Pro Thr Gly Lys Ser Ser Phe Ser Ile Thr Arg Glu Ala Gln Val
                     570
              565
Asn Val Arg Met Asp Ser Phe Asp Glu Asp Leu Ala Arg Pro Ser Gly
                            585
                                              590
          580
Leu Leu Ala Gln Glu Arg Lys Leu Cys Arg Asp Leu Val His Ser Asn
                        600
Lys Lys Glu Gln Glu Phe Arg Ser Ile Phe Gln His Ile Gln Ser Ala
                                      620
            615
Gln Ser Gln Arg Ser Pro Ser Glu Leu Phe Ala Gln His Ile Val Thr
                                  635
                  630.
 Ile Val His His Val Lys Glu His His Phe Gly Ser Ser Gly Met Thr
                                650
               645
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Leu His Glu Arg Phe Thr Lys Tyr Leu Lys Arg Gly Thr Glu Gln Glu 660 665 Ala Ala Lys Asn Lys Lys Ser Pro Glu Ile His Arg Arg Ile Asp Ile 675 680 Ser Pro Ser Thr Phe Arg Lys His Gly Leu Ala His Asp Glu Met Lys 695 700 Ser Pro Arg Glu Pro Gly Tyr Lys Ala Glu Gly Lys Tyr Lys Asp Asp 710 715 Pro Val Asp Leu Arg Leu Asp Ile Glu Arg Arg Lys Lys His Lys Glu 725 730 Arg Asp Leu Lys Arg Gly Lys Ser Arg Glu Ser Val Asp Ser Arg Asp 740 745 Ser Ser His Ser Arg Glu Arg Ser Ala Glu Lys Thr Glu Lys Thr His 760 Lys Gly Ser Lys Lys Gln Lys Lys His Arg Arg Ala Arg Asp Arg Ser 775 780 Arg Ser Ser Ser Ser Ser Gln Ser Ser His Ser Tyr Lys Ala Glu 795 790 Glu Tyr Thr Glu Glu Thr Glu Glu Arg Glu Glu Ser Thr Thr Gly Phe 805 810 Asp Lys Ser Arg Leu Gly Thr Lys Asp Phe Val Gly Pro Ser Glu Arg 820 825 830 Gly Gly Gly Arg Ala Arg Gly Thr Phe Gln Phe Arg Ala Arg Gly Arg 840 Gly Trp Gly Arg Gly Asn Tyr Ser Gly Asn Asn Asn Asn Asn Ser Asn 855 860 Asn Asp Phe Gln Lys Arg Asn Arg Glu Glu Glu Trp Asp Pro Glu Tyr 875 880 870 Thr Pro Lys Ser Lys Lys Tyr Tyr Leu His Asp Asp Arg Glu Gly Glu 885 890 Gly Ser Asp Lys Trp Val Ser Arg Gly Arg Gly Arg Gly Ala Phe Pro 905 Arg Gly Arg Gly Arg Phe Met Phe Arg Lys Ser Ser Thr Ser Pro Lys 915 920 925 Trp Ala His Asp Lys Phe Ser Gly Glu Glu Gly Glu Ile Glu Asp Asp 935 940 Glu Ser Gly Thr Glu Asn Arg Glu Glu Lys Asp Asn Ile Gln Pro Thr 950 955 Thr Glu 962

<210> 2347 <211> 117 <212> PRT <213> Homo sapiens

<400> 2347

Cys Pro Ala Leu Gly Gly Arg Gln Asp Leu Gln Gly Thr Arg Leu Leu 10 Trp Ala His Asp Ser Gly Val Gly Gln Lys Ala Lys Ser Lys Gln 20 25 Glu Asn Leu Glu Ser Leu Glu Ala Thr Gly Arg Glu Glu Glu Gly Gly 40 Gln Gly Pro Pro Val Thr Thr Lys Gly Val Leu Leu Ala Leu Leu Met 55 Ala Gly Leu Ala Leu Gln Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys 70 75 Lys Ala Gln Val Ser Asn Glu Asp Cys Leu Gln Val Glu Asn Cys Thr 85 90 Gln Leu Gly Glu Gln Cys Trp Thr Ala Arg Ile Arg Glu Trp Gly Asp 105 110

Asp Ser Arg Gln Ala 115 117

> <210> 2348 <211> 132 <212> PRT <213> Homo sapiens

<400> 2348 Asn Pro Pro Ser Ala Cys Thr Pro Gly Ser Cys Asp Ser Cys Ser Gly 10 Arg Gly Arg Asp Leu Ala Phe Asp Ser Val Trp Ser Thr Asn Asn Met 25 Ser Asp Pro Arg Arg Pro Asm Lys Val Leu Arg Tyr Lys Pro Pro Pro 40 Ser Glu Cys Asn Pro Ala Leu Asp Asp Pro Thr Pro Asp Tyr Met Asn 60 55 Leu Leu Gly Met Ile Phe Ser Met Cys Gly Leu Met Leu Lys Leu Lys 70 Trp Cys Ala Trp Val Ala Val Tyr Cys Ser Phe Ile Ser Phe Ala Asn 90 85 Ser Arg Ser Ser Glu Asp Thr Lys Gln Met Met Ser Ser Phe Met Leu 100 105 110 Ser Ile Ser Ala Val Val Met Ser Tyr Leu Gln Asn Pro Gln Pro Met 120 115 Thr Pro Pro Trp 130 132

<210> 2349 <211> 344 <212> PRT <213> Homo sapiens

<400> 2349 Ala Ser Ala Ser His Ile Thr Ser Gly His Leu Arg Cys Phe Pro Gly 10 5 Ser Glu Gly Val Gly Thr Met Ala Arg Cys Phe Ser Leu Val Leu Leu 25 20 Leu Thr Ser Ile Trp Thr Thr Arg Leu Leu Val Gln Gly Ser Leu Arg 40 Ala Glu Glu Leu Ser Ile Gln Val Ser Cys Arg Ile Met Gly Ile Thr 60 55 Leu Val Ser Lys Lys Ala Asn Gln Gln Leu Asn Phe Thr Glu Ala Lys 75 70 Glu Ala Cys Arg Leu Leu Gly Leu Ser Leu Ala Gly Lys Asp Gln Val 90 Glu Thr Ala Leu Lys Ala Ser Phe Glu Thr Cys Ser Tyr Gly Trp Val 105 110 100 Gly Asp Gly Phe Val Val Ile Ser Arg Ile Ser Pro Asn Pro Lys Cys 120 115 Gly Lys Asn Gly Val Gly Val Leu Ile Trp Lys Val Pro Val Ser Arg 135 140 130 Gln Phe Ala Ala Tyr Cys Tyr Asn Ser Ser Asp Thr Trp Thr Asn Ser 155 150 Cys Ile Pro Glu Ile Ile Thr Thr Lys Asp Pro Ile Phe Asn Thr Gln 175 170 165 Thr Ala Thr Gln Thr Thr Glu Phe Ile Val Ser Asp Ser Thr Tyr Ser 185 180

Val Ala Ser Pro Tyr Ser Thr Ile Pro Ala Pro Thr Thr Pro Pro 200 195 Ala Pro Ala Ser Thr Ser Ile Pro Arg Arg Lys Lys Leu Ile Cys Val 220 215 Thr Glu Val Phe Met Glu Thr Ser Thr Met Ser Thr Glu Thr Glu Pro 230 235 240 Phe Val Glu Asn Lys Ala Ala Phe Lys Asn Glu Ala Ala Gly Phe Gly
245 250 255 245 250 Gly Val Pro Thr Ala Leu Leu Val Leu Ala Leu Leu Phe Phe Gly Ala 260 265 270 Ala Ala Gly Leu Gly Phe Cys Tyr Val Lys Arg Tyr Val Lys Ala Phe 280 285 Pro Phe Thr Asn Lys Asn Gln Gln Lys Glu Met Ile Glu Thr Lys Val 295 300 Val Lys Glu Glu Lys Ala Asn Asp Ser Asn Pro Asn Glu Glu Ser Lys 310 315 320 Lys Thr Asp Lys Asn Pro Glu Glu Ser Lys Ser Pro Ser Lys Thr Thr 330 325 Met Arg Cys Leu Glu Ala Glu Val

<210> 2350 <211> 258 <212> PRT <213> Homo sapiens

<400> 2350 Lys Glu Arg Cys Gln Phe Val Val Lys Pro Met Leu Ser Thr Val Gly 5 10 Ser Phe Leu Gln Asp Leu Gln Asn Glu Asp Lys Gly Ile Lys Thr Ala 25 Ala Ile Phe Thr Ala Asp Gly Asn Met Ile Ser Ala Ser Thr Leu Met 35 40 45 Asp Ile Leu Leu Met Asn Asp Phe Lys Leu Val Ile Asn Lys Ile Ala 55 Tyr Asp Val Gln Cys Pro Lys Arg Glu Lys Pro Ser Asn Glu His Thr Ala Glu Met Glu His Met Lys Ser Leu Val His Arg Leu Phe Thr Ile 85 90 Leu His Leu Glu Glu Ser Gln Lys Lys Arg Glu His His Leu Leu Glu 105 110 100 Lys Ile Asp His Leu Lys Glu Gln Leu Gln Pro Leu Glu Gln Val Lys 115 120 125 Ala Gly Ile Glu Ala His Ser Glu Ala Lys Thr Ser Gly Leu Leu Trp 135 140 Ala Gly Leu Ala Leu Leu Ser Ile Gln Gly Gly Ala Leu Ala Trp Leu 150 155 Thr Trp Trp Val Tyr Ser Trp Asp Ile Met Glu Pro Val Thr Tyr Phe 165 170 175 Ile Thr Phe Ala Asn Ser Met Val Phe Phe Ala Tyr Phe Ile Val Thr 180 185 Arg Gln Asp Tyr Thr Tyr Ser Ala Val Lys Ser Arg Gln Phe Leu Gln 195 200 Phe Phe His Lys Lys Ser Lys Gln Gln His Phe Asp Val Gln Gln Tyr 215 220 Asn Lys Leu Lys Glu Asp Leu Ala Lys Ala Lys Glu Ser Leu Lys Gln 230 235 Ala Arg His Ser Leu Cys Leu Gln Met Gln Val Glu Glu Leu Asn Glu 245 250 255

1410

Lys Asn 258

<210> 2351 <211> 378 <212> PRT <213> Homo sapiens

<400> 2351 Val Gly Phe Trp Glu Arg Pro Leu Arg Ser Ser Arg Trp Phe Arg Arg 10 Ser Leu Arg Arg Trp Glu Met Leu Ala Arg Ala Ala Arg Gly Thr Gly 25 20 Ala Leu Leu Leu Arg Gly Ser Leu Leu Ala Ser Gly Arg Ala Pro Arg 40 Arg Ala Ser Ser Gly Leu Pro Arg Asn Thr Val Val Leu Phe Val Pro 60 50 55 Gln Gln Glu Ala Trp Val Val Glu Arg Met Gly Arg Phe His Arg Ile 75 70 Leu Glu Pro Gly Leu Asn Ile Leu Ile Pro Val Leu Asp Arg Ile Arg 90 85 Tyr Val Gln Ser Leu Lys Glu Ile Val Ile Asn Val Pro Glu Gln Ser 100 105 110 Ala Val Thr Leu Asp Asn Val Thr Leu Gln Ile Asp Gly Val Leu Tyr 115 120 125 Leu Arg Ile Met Asp Pro Tyr Lys Ala Ser Tyr Gly Val Glu Asp Pro 130 135 140 Glu Tyr Ala Val Thr Gln Leu Ala Gln Thr Thr Met Arg Ser Glu Leu 145 150 155 Gly Lys Leu Ser Leu Asp Lys Val Phe Arg Glu Arg Glu Ser Leu Asn 170 165 Ala Ser Ile Val Asp Ala Ile Asn Gln Ala Ala Asp Cys Trp Gly Ile 190 180 185 Arg Cys Leu Arg Tyr Glu Ile Lys Asp Ile His Val Pro Pro Arg Val 195 200 Lys Glu Ser Met Gln Met Gln Val Glu Ala Glu Arg Arg Lys Arg Ala 210 215 220 Thr Val Leu Glu Ser Glu Gly Thr Arg Glu Ser Ala Ile Asn Val Ala 235 230 Glu Gly Lys Lys Gln Ala Gln Ile Leu Ala Ser Glu Ala Glu Lys Ala 250 245 Glu Gln Ile Asn Gln Ala Ala Gly Glu Ala Ser Ala Val Leu Ala Lys 265 270 260 Ala Lys Ala Lys Ala Glu Ala Ile Arg Ile Leu Ala Ala Ala Leu Thr 275 280 285 Gln His Asn Gly Asp Ala Ala Ala Ser Leu Thr Val Ala Glu Gln Tyr 290 295 300 Val Ser Ala Phe Ser Lys Leu Ala Lys Asp Ser Asn Thr Ile Leu Leu 310 315 Pro Ser Asn Pro Gly Asp Val Thr Ser Met Val Ala Gln Ala Met Gly 330 325 Val Tyr Gly Ala Leu Thr Lys Ala Pro Val Pro Gly Thr Pro Asp Ser 340 345 350 Leu Ser Ser Gly Ser Ser Arg Asp Val Gln Gly Thr Asp Ala Ser Leu 355 360 365 Asp Glu Glu Leu Asp Arg Val Lys Met Ser 375

1411

<210> 2352 <211> 269

## <213> Homo sapiens

<400> 2352 Asn Arg Glu Asn Leu Leu Glu Ser Arg Met Met Asp Pro Cys Ser Val 5 10 Gly Val Gln Leu Arg Thr Thr Asn Glu Cys His Lys Thr Tyr Tyr Thr 20 25 Arg His Thr Gly Phe Lys Thr Leu Gln Glu Leu Ser Ser Asn Asp Met Leu Leu Gln Leu Arg Thr Gly Met Thr Leu Ser Gly Asn Asn Thr 60 55 Ile Cys Phe His His Val Lys Ile Tyr Ile Asp Arg Phe Glu Asp Leu 70 75 Gln Lys Ser Cys Cys Asp Pro Phe Asn Ile His Lys Lys Leu Ala Lys 85 90 Lys Asn Leu His Val Ile Asp Leu Asp Asp Ala Thr Phe Leu Ser Ala 100 105 Lys Phe Gly Arg Gln Leu Val Pro Gly Trp Lys Leu Cys Pro Lys Cys 115 120 125 Thr Gln Ile Ile Asn Gly Ser Val Asp Val Asp Thr Glu Asp Arg Gln 135 140 Lys Arg Lys Pro Glu Ser Asp Gly Arg Thr Ala Lys Ala Leu Arg Ser 150 155 Leu Gln Phe Thr Asn Pro Gly Arg Gln Thr Glu Phe Ala Pro Glu Thr 165 170 Gly Lys Arg Glu Lys Arg Arg Leu Thr Lys Asn Ala Thr Ala Gly Ser 185 Asp Arg Gln Val Ile Pro Ala Lys Ser Lys Val Tyr Asp Ser Gln Gly 200 Leu Leu Ile Phe Ser Gly Met Asp Leu Cys Asp Cys Leu Asp Glu Asp 215 220 Cys Leu Gly Cys Phe Tyr Ala Cys Pro Ala Cys Gly Ser Thr Lys Cys . 230 235 Gly Ala Glu Cys Arg Cys Asp Arg Lys Trp Leu Tyr Glu Gln Ile Glu 245 250 Ile Glu Gly Glu Ile Ile His Asn Lys His Ala Gly

<210> 2353 <211> 470 <212> PRT

115

<213> Homo sapiens

<400> 2353 Thr Glu Trp Gly Leu Ser Gly Ser Cys Pro Gly Cys Ser Pro Leu Glu 10 Pro Gly Ser Arg Gly Arg Gly Ala Ala Ala Trp Arg Ile Leu Arg Cys 20 25 Arg Arg Leu Pro Glu Pro Ser Pro Phe Leu Thr Gln Pro Asn Leu Ala 40 Gln Ser Gln Pro Pro Ala Pro Val Pro Val Thr Asp Pro Ser Val Thr 55 Met His Pro Ala Val Phe Leu Ser Leu Pro Asp Leu Arg Cys Ser Leu 70 75 Leu Leu Val Thr Trp Val Phe Thr Pro Val Thr Thr Glu Ile Thr 90 Ser Leu Asp Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn Ala Asp Val 105 110 Ala Leu Val Asn Phe Tyr Ala Asp Trp Cys Arg Phe Ser Gln Met Leu

120

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His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile Lys Glu Glu Phe Pro
                                  140
                  135
Asn Glu Asn Gln Val Val Phe Ala Arg Val Asp Cys Asp Gln His Ser
                             155
             150
145
Asp Ile Ala Gln Arg Tyr Arg Ile Ser Lys Tyr Pro Thr Leu Lys Leu
                  170
           165
Phe Arg Asn Gly Met Met Lys Arg Glu Tyr Arg Gly Gln Arg Ser
        180 185 190
Val Lys Ala Leu Ala Asp Tyr Ile Arg Gln Gln Lys Ser Asp Pro Ile
                                    205
     195
                    200
Gln Glu Ile Arg Asp Leu Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys
                                 220
  210 , 215
Arg Asn Ile Ile Gly Tyr Phe Glu Gln Lys Asp Ser Asp Asn Tyr Arg
                       235 240
          230
225
Val Phe Glu Arg Val Ala Asn Ile Leu His Asp Asp Cys Ala Phe Leu
           245
                   250
Ser Ala Phe Gly Asp Val Ser Lys Pro Glu Arg Tyr Ser Gly Asp Asn
                        265 270
      260
Ile Ile Tyr Lys Pro Pro Gly His Ser Ala Pro Asp Met Val Tyr Leu
     275 280 285
Gly Ala Met Thr Asn Phe Asp Val Thr Tyr Asn Trp Ile Gln Asp Lys
                          300
          295
Cys Val Pro Leu Val Arg Glu Ile Thr Phe Glu Asn Gly Glu Glu Leu
                       315
              310
305
Thr Glu Glu Gly Leu Pro Phe Leu Ile Leu Phe His Met Lys Glu Asp
           325 330 335
Thr Glu Ser Leu Glu Ile Phe Gln Asn Glu Val Ala Arg Gln Leu Ile
                                350
                345
        340
Ser Glu Lys Gly Thr Ile Asn Phe Leu His Ala Asp Cys Asp Lys Phe
      355 360
                                     365
Arg His Pro Leu Leu His Ile Gln Lys Thr Pro Ala Asp Cys Pro Val
                                  380
          375
Ile Ala Ile Asp Ser Phe Arg His Met Tyr Val Phe Gly Asp Phe Lys
                              395
             390
Asp Val Leu Ile Pro Gly Lys Leu Lys Gln Phe Val Phe Asp Leu His
405
410'
415
Ser Gly Lys Leu His Arg Glu Phe His His Gly Pro Asp Pro Thr Asp
                         425 430
        420
Thr Ala Pro Gly Glu Gln Ala Gln Asp Val Ala Ser Ser Pro Pro Glu
                               445
     435
                     440
Ser Ser Phe Gln Lys Leu Ala Pro Ser Glu Tyr Arg Tyr Thr Leu Leu
  450 455
Arg Asp Arg Asp Glu Leu
               470
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<210> 2354 <211> 174 <212> PRT <213> Homo sapiens

 <400> 2354

 Gly Leu Ser Arg
 Lys
 Leu Arg
 Ala Gly
 Phe Leu Pro Gly
 Phe Cys
 Arg

 1
 5
 10
 10
 15
 15

 Val Ser Pro Cys
 Gly
 Ser Trp
 Val Val Glu
 Thr Leu Val Lys
 Met Ala

 20
 25
 30
 30

 Cys
 Ala Ala Ala Arg
 Ser Pro Ala Asp Glu
 Asp Glu
 Asp Arg Phe Ile Cys
 Ile Cys
 Ile Trp

 Tyr
 Pro Ala Tyr
 Leu Asn Asn Lys
 Lys
 Thr Ile Ala Glu
 Gly
 Arg

 50
 55
 60
 60
 60
 11e
 Glu
 Asp
 Asp
 Thr Ala Thr Glu
 Ile Glu
 65
 60
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Asp Val Cys Ser Ala Val Gly Leu Asn Val Phe Leu Glu Lys Asn Lys 95

Met Tyr Ser Arg Glu Trp Asn Arg Asp Val Gln Tyr Arg Gly Arg Val 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 -

<210> 2355 <211> 146 <212> PRT <213> Homo sapiens

<400> 2355 Gln Ser His Glu Thr Lys Met Gln Ser Gly Thr His Trp Arg Val Leu 10 Gly Leu Cys Leu Leu Ser Val Gly Val Trp Gly Gln Asp Gly Asn Glu 25 Glu Met Gly Gly Ile Thr Gln Thr Pro Tyr Lys Val Ser Ile Ser Gly 35 40 Thr Thr Val Ile Leu Thr Cys Pro Gln Tyr Pro Gly Ser Glu Ile Leu 55 Trp Gln His Asn Asp Lys Asn Ile Gly Gly Asp Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp His Leu Ser Leu Lys Glu Phe Ser Glu Leu 90 85 Glu Gln Ser Gly Tyr Tyr Val Cys Tyr Pro Arg Gly Ser Lys Pro Glu 100 105 Asp Ala Asn Phe Tyr Leu Tyr Leu Arg Ala Arg Gly Asn Pro Gly Leu 120 Gln Asn Arg Tyr His Arg Leu Phe Arg Glu Asp His Ser Lys Gly His 135 Ser Gln 145 146

<210> 2356 <211> 101 <212> PRT <213> Homo sapiens

<400> 2356 Ala Val Gln Arg Ile Arg His Glu Met Asn Ile Phe Arg Leu Thr Gly 1 5 10 Asp Leu Ser His Leu Ala Ala Ile Val Ile Leu Leu Lys Ile Trp 20 25 Lys Thr Arg Ser Cys Ala Gly Ile Ser Gly Lys Ser Gln Leu Leu Phe 35 40 Ala Leu Val Phe Thr Thr Arg Tyr Leu Asp Leu Phe Thr Ser Phe Ile 55 60 Ser Leu Tyr Asn Thr Ser Met Lys Val Trp Tyr Ala Ile His Arg Asn 75 70 Val Phe His Leu Gln Cys Thr Gly Leu Trp Thr Leu Asn Leu Cys Gln 90

Leu Cys Ile Phe Asn 100 101

> <210> 2357 <211> 170 <212> PRT <213> Homo sapiens

<400> 2357 Gly Ala Gly Ala Gly Gly Asp Trp Ala Ala Met Asp Lys Leu Lys Lys

1 10 15 Val Leu Ser Gly Gln Asp Thr Glu Asp Arg Ser Gly Leu Ser Glu Val 25 20 Val Glu Ala Ser Ser Leu Ser Trp Ser Thr Arg Ile Lys Gly Phe Ile 40 Ala Cys Phe Ala Ile Gly Ile Leu Cys Ser Leu Leu Gly Thr Val Leu 60 55 Leu Trp Val Pro Arg Lys Gly Leu His Leu Phe Ala Val Phe Tyr Thr 70 75 Phe Gly Asn Ile Ala Ser Ile Gly Ser Thr Ile Phe Leu Met Gly Pro 85 90 95 Val Lys Gln Leu Lys Arg Met Phe Glu Pro Thr Arg Leu Ile Ala Thr 100 105 110 Ile Met Val Leu Cys Phe Ala Leu Thr Leu Cys Ser Ala Phe Trp 115 120 125 Trp His Asn Lys Gly Leu Ala Leu Ile Phe Cys Ile Leu Gln Ser Leu 135 140 Ala Leu Thr Trp Tyr Ser Leu Ser Phe Ile Pro Phe Ala Arg Asp Ala 155 150 Val Lys Lys Cys Phe Ala Val Cys Leu Ala 165

<210> 2358 <211> 112 <212> PRT <213> Homo sapiens

<400> 2358 Ala Gln Asp Ile Arg Ser Val His Ser Leu Gly Gln Lys Ser Thr Phe Val Lys His Phe Arg Thr Leu Ser His Leu His Gly Leu Pro Asp Pro 20 25 Pro Pro His Trp Pro Pro Gln Glu Arg Ser Pro Pro Ser His Pro Cys 40 Met Pro Ser His Arg Pro Gln Ile Pro Gln Leu Ser Asn Ser Gly Pro 55 60 Ser Asp Pro Arg Trp Gly Cys Val Gly Pro Ser Met Pro Thr Ser Thr 65 70 75 80 Cys Leu Pro Gly Ala Val Glu Ala Ser Thr Thr Lys Ala Ser Leu Pro 90 85 Lys Cys Pro Val Asp Ser Ser Leu Pro Thr Pro Glu Ala Cys Phe Leu 105

<210> 2359

<211> 273 <212> PRT <213> Homo sapiens

<400> 2359 Glu Thr Arg Val Lys Thr Ser Leu Glu Leu Leu Arg Thr Gln Leu Glu Pro Thr Gly Thr Val Gly Asn Thr Ile Met Thr Ser Gln Pro Val Pro 20 25 Asn Glu Thr Ile Ile Val Leu Pro Ser Asn Val Ile Asn Phe Ser Gln 40 Ala Glu Lys Pro Glu Pro Thr Asn Gln Gly Gln Asp Ser Leu Lys Lys 55 His Leu His Ala Glu Ile Lys Val Ile Gly Thr Ile Gln Ile Leu Cys 70 75 Gly Met Met Val Leu Ser Leu Gly Ile Ile Leu Ala Ser Ala Ser Phe 85 90 Ser Pro Asn Phe Thr Gln Val Thr Ser Thr Leu Leu Asn Ser Ala Tyr 105 Pro Phe Ile Gly Pro Phe Phe Ile Ile Ser Gly Ser Leu Ser Ile 115 . 120 125 Ala Thr Glu Lys Arg Leu Thr Lys Leu Leu Val His Ser Ser Leu Val 135 Gly Ser Ile Leu Ser Ala Leu Ser Ala Leu Val Gly Phe Ile Ile Leu 150 155 Ser Val Lys Gln Ala Thr Leu Asn Pro Ala Ser Leu Gln Cys Glu Leu 165 170 Asp Lys Asn Asn Ile Pro Thr Arg Ser Tyr Val Ser Tyr Phe Tyr His 180 185 190 Asp Ser Leu Tyr Thr Thr Asp Cys Tyr Thr Ala Lys Ala Ser Leu Ala 200 Gly Thr Leu Ser Leu Met Leu Ile Cys Thr Leu Leu Glu Phe Cys Leu 215 220 Ala Val Leu Thr Ala Val Leu Arg Trp Lys Gln Ala Tyr Ser Asp Phe 230 235 Pro Gly Ser Val Leu Phe Leu Pro His Ser Tyr Ile Gly Asn Ser Gly 250 245 Met Ser Ser Lys Met Thr His Asp Cys Gly Tyr Glu Glu Leu Leu Thr 260 265

Ser 273

> <210> 2360 <211> 157 <212> PRT <213> Homo sapiens

<400> 2360 Lys Tyr Arg Tyr Arg Pro Tyr Pro Val Met Arg Lys Ile Cys Gln 10 Val Gly Pro Ala Gly Leu Ala Phe Ile Leu Asn Ile Ser Pro Val Ala 20 25 His Arg Val Ala Leu Cys His Leu Ala Gly Cys Gln Glu Gln Ala Ala 40 Trp Tyr His Thr Leu Gln Ile Leu Phe Phe Leu Val Ser Ala Tyr Phe 55 60 Phe Ser Cys Pro Val Pro Glu Lys Tyr Phe Pro Gly Ser Cys Asp Ile 70 75 Val Gly His Gly His Gln Ile Phe His Ala Phe Leu Ser Ile Cys Thr 90

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Leu Ser Gln Leu Glu Ala Ile Leu Leu Asp Tyr Gln Gly Arg Gln Glu 100 105 Ile Phe Leu Gln Arg His Gly Pro Leu Ser Val His Met Ala Cys Leu 120 125 115 Ser Phe Phe Phe Leu Ala Ala Cys Ser Ala Ala Thr Ala Ala Leu Leu 140 135 Arg His Lys Val Lys Ala Arg Leu Thr Lys Lys Asp Ser 150 155

<210> 2361 <211> 134 <212> PRT

<213> Homo sapiens

<400> 2361 Thr Glu Leu Ser Gln Leu Glu Lys Ala His Pro Pro Ala Asp Met Gly 10 Arg Arg Lys Ser Lys Arg Lys Pro Pro Pro Lys Lys Met Thr Gly 25 20 Thr Leu Glu Thr Gln Phe Thr Cys Pro Phe Cys Asn His Glu Lys Ser 40 35 Cys Asp Val Lys Met Asp Arg Ala Arg Asn Thr Gly Val Ile Ser Cys 5**5** 60 Thr Val Cys Leu Glu Glu Phe Gln Thr Pro Ile Thr Cys Ile Leu Gly 70 75 Asn Leu Gly Phe Phe Gln Arg Val Gly Arg Gly Leu Glu Ser Gly Pro 90 Cys Ser Ser Gly Pro Leu Cys Ala Leu Val Gln Gly Gln Ser Arg Pro 100 105 110 Glu Glu Gln Val Pro Pro Ser Asp Phe Cys Gly Val Arg Arg Cys Arg 120 115 Ala Gly Phe Gln Cys Gln 130 134

<210> 2362 <211> 386 <212> PRT <213> Homo sapiens

<400> 2362 Arg Thr Ser Thr Gln Lys Trp Gln Ser Val Phe Asn Asp Ser Gln Glu 10 His Leu Glu Arg Phe Tyr Cys Asn Pro Glu Asn Asp Arg Met Arg Met Lys Tyr Gly Gly Gln Glu Phe Trp Ala Asp Leu Asn Ala Met Asn Val 40 Tyr Glu Thr Thr Glu Phe Asp Gln Leu Arg Arg Leu Ser Thr Pro Pro 55 60 Ser Ser Asn Val Asn Ser Ile Tyr His Thr Val Trp Lys Phe Phe Cys 75 70 Arg Asp His Phe Gly Trp Arg Glu Tyr Pro Glu Ser Val Ile Arg Leu 90 Ile Glu Glu Ala Asn Ser Arg Gly Leu Lys Glu Val Arg Phe Met Met 100 105 110 Trp Asn Asn His Tyr Ile Leu His Asn Ser Phe Phe Arg Arg Glu Ile 120 125 115 Lys Arg Arg Pro Leu Phe Arg Ser Cys Phe Ile Leu Leu Pro Tyr Leu 135

Gln Thr Leu Gly Gly Val Pro Thr Gln Ala Pro Pro Pro Leu Glu Ala 145 150 155 Thr Ser Ser Ser Gln Ile Ile Cys Pro Asp Gly Val Thr Ser Ala Asn 170 165 Phe Tyr Pro Glu Thr Trp Val Tyr Met His Pro Ser Gln Asp Phe Ile 185 Gln Val Pro Val Ser Ala Glu Asp Lys Ser Tyr Arg Ile Ile Tyr Asn 200 205 Leu Phe His Lys Thr Val Pro Glu Phe Lys Tyr Arg Ile Leu Gln Ile 215 220 Leu Arg Val Gln Asn Gln Phe Leu Trp Glu Lys Tyr Lys Arg Lys Lys 230 235 Glu Tyr Met Asn Arg Lys Met Phe Gly Arg Asp Arg Ile Ile Asn Glu 245 250 Arg His Leu Phe His Gly Thr Ser Gln Asp Val Val Asp Gly Ile Cys 260 265 270 260 265 270 Lys His Asn Phe Asp Pro Arg Val Cys Gly Lys His Ala Thr Met Phe 275 280 285 Gly Gln Gly Ser Tyr Phe Ala Lys Lys Ala Ser Tyr Ser His Asn Phe 290 295 300 Ser Lys Lys Ser Ser Lys Gly Val His Phe Met Phe Leu Ala Lys Val 310 315 Leu Thr Gly Arg Tyr Thr Met Gly Ser His Gly Met Arg Arg Pro Pro 325 330 Pro Val Asn Pro Gly Ser Val Thr Ser Asp Leu Tyr Asp Ser Cys Val 340 345 Asp Asn Phe Phe Glu Pro Gln Ile Phe Val Ile Phe Asn Asp Asp Gln 355 360 365 Ser Tyr Pro Tyr Phe Val Ile Gln Tyr Glu Glu Val Ser Asn Thr Val 370 375 Ser Ile 385 386

<210> 2363 <211> 171 <212> PRT

<213> Homo sapiens

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<210> 2364 <211> 115 <212> PRT <213> Homo sapiens

<400> 2364 Tyr Ile Arg Thr Gly Tyr Val Tyr Ile Cys Ile Ile Tyr Ala Gln Leu 10 Met Tyr Thr Tyr Tyr Ile Arg Thr Ala Tyr Val Tyr Ile Cys Ile Leu Tyr Ala Gln Leu Met Tyr Thr Tyr Val Leu Tyr Thr His Ser Leu Cys 40 35 Ile His Met Tyr Ser Ile Arg Thr Ala Tyr Val Tyr Ile Cys Ile Ile 55 Tyr Ala Gln Ile Met Tyr Thr Tyr Val Phe Tyr Thr His Arg Leu Cys 75 70 Ile His Met Tyr Ser Ile Arg Thr Asp Tyr Val Tyr Ile Cys Ile Leu 85 90 Tyr Ala Gln Leu Met Tyr Thr Tyr Val Phe Tyr Thr His Ser Tyr Met Ser Asp Glu 115

<210> 2365 <211> 728 <212> PRT <213> Homo sapiens

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50 55 60 55 Pro Val Ile Asn Pro Leu Gly Thr Ser Phe Pro Asp Asp Thr Ala Val 75 70 Gln Pro Ser Phe Gln Val Gly Val Pro Leu Ser Thr Thr Pro Arg Ser 95 90 85 Asn Ala Ser Val Asn Val Ser His Pro Ala Pro Gly Asp Trp Phe Val 110 105 100 Ala Ala His Leu Pro Pro Ser Ser Gln Lys Ile Glu Leu Lys Gly Leu 125 120 115 Ala Pro Thr Cys Ala Tyr Val Phe Gln Pro Glu Leu Leu Val Thr Arg 140 130 135 Val Val Glu Ile Ser Ile Met Glu Pro Asp Val Pro Leu Pro Gln Thr 145 150 155 160 Leu Leu Ser His Pro Ser Tyr Leu Lys Val Phe Val Pro Asp Tyr Thr 170 175 Arg Glu Leu Leu Glu Leu Arg Asp Cys Val Ser Asn Gly Ser Leu 190 185 Gly Cys Pro Val Arg Leu Thr Val Gly Pro Val Thr Leu Pro Ser Asn 205 200 195 Phe Gln Lys Val Leu Thr Cys Thr Gly Ala Pro Trp Pro Cys Arg Leu 220 · 215

Leu 225	Leu	Pro	ser	Pro	Pro 230	Trp	Asp	Arg	Trp	Leu 235	Gln	Val	Thr	Ala	Glu 240
	Leu	Val	Gly			Gly	Thr	Val			Ser	Ala	Val		
Leu	Thr	Ala	Cys	245 Arg	Pro	Arg	Ser		250 Thr	Ile	Gln	Pro		255 Leu	Gln
Ser	Ser		260 Asn	Gln	Ser	Phe		265 Ala	Ser	Ser	Gly		270 Leu	Ser	Pro
Ser		275 Asp	His	Gln	Asp		280 Gly	Arg	Ser	Gly		285 Val	Asp	Arg	Ser
Pro	290 Phe	Суз	Leu	Thr	Asn	295 Tyr	Pro	Val	Thr	Arg	300 Glu	Asp	Met	Asp	
305 Val	Ser	Val	His	Phe	310 Gln	Pro	Leu	qaA	_	315 Val	Ser	Val	Arg	Val	320 Cys
Ser	Asp	Thr	Pro	325 Ser	Val	Met	Arg	Leu	330 Arg	Leu	Asn	Thr	Gly	335 Met	Asp
Ser	Gly	Gly	340 Ser	Leu	Thr	Ile	.ser	345 Leu	Arg	Ala	Asn	Lys	350 Thr	Glu	Met
Arg	Asn	355 Glu	Thr	Val	Val	Val	360 Ala	Cys	Val	Asn	Ala	365 Ala	Ser	Pro	Phe
Leu	370 Gly	Phe	Asn	Thr	Ser	375 Leu	Asn	Суз	Thr	Thr	380 Ala	Phe	Phe	Gln	Gly
385			ser		390					395					400
_			Glu	405			Ī		410	_				415	
	-		420 Ala				_	425					430		_
		435	Leu				440					445		•	
	450	_				455			_	_	460		-	_	
465			Leu -	_	470					475					480
•		•	Trp	485	_	_		_	490					495	
			Gln 500		_			505					510		
		515	Leu				520				_	525			
Val	Glu 530	Ala	Ser	Val	Tyr	Ala 535	Tyr	Thr	Met	Phe	Phe 540	Ser	Thr	Phe	Tyr
His 545	Ala	Сув	Asp	Gln	Pro 550	Gly	Glu	Ala	Val	Leu 555	Сув	Ile	Leu	Ser	Tyr 560
Авр	Thr	Leu	Gln	Tyr 565	Сув	Asp	Phe	Leu	Gly 570	Ser	Gly	Ala	Ala	Ile 575	Trp
			Leu 580					585	_				590		
Leu	Phe	Leu 595	Leu	Gly	Thr	Leu	Val 600	Ile	Ala	Met	Ser	Leu 605	Gln	Leu	Ąsp
Arg	Arg 510	GJA	Met	Trp	Asn	Met 615	Leu	Gly	Pro	Cys	Leu 620	Phe	Ala	Phe	Val
Ile 625	Met	Ala	Ser	Met	Trp 630	Ala	Tyr	Arg	Cys	Gly 635	His	Arg	Arg	Gln	Cys 640
Tyr	Pro	Thr	Ser	Trp 645	Gln	Arg	Trp	Ala	Phe 650	Tyr	Leu	Leu	Pro	Gly 655	Val
Ser	Met	Ala	Ser 660		Gly	Ile	Ala	Ile 665		Thr	Ser	Met	Met 670		Ser
Asp	Asn	Tyr 675	Tyr	Tyr	Thr	His	Ser 680		Trp	His	Ile	Leu 685		Ala	Gly
Ser	Ala 690	Ala	Leu	Leu	Leu	Pro 695	Pro	Pro	Asp	Gln	Pro 700	Ala	Glu	Pro	Trp
Ala 705		Ser	Gln	Lys	Phe 710		Cys	His	Tyr	Gln 715	_	Cys	Lys	Asn	Asp 720
	Glu	Glu	Leu	Tyr 725		Val	Thr 728								

<210> 2366 <211> 151 <212> PRT <213> Homo sapiens

<400> 2366 Lys Trp Tyr Pro Ser Gly Pro Val Arg Ile Pro Gly Arg Phe Tyr Tyr 10 Lys Leu Pro Ala Gly His Arg Arg Cys Arg Met Ala Pro Ala Lys Lys Gly Gly Glu Lys Lys Lys Gly Arg Ser Ala Ile Asn Glu Val Val Thr 35 40 45 Arg Glu Tyr Thr Ile Asn Ile His Lys Arg Ile His Gly Val Gly Phe 60 55 Lys Lys Arg Ala Pro Arg Ala Leu Lys Glu Ile Arg Lys Phe Ala Met 70 75 Lys Glu Met Gly Thr Pro Asp Val Arg Ile Asp Thr Arg Leu Asn Lys 85 90 Ala Val Trp Ala Lys Gly Ile Arg Asn Val Pro Tyr Arg Ile Arg Val 110 100 105 Arg Leu Ser Arg Lys Arg Asn Glu Asp Glu Asp Ser Pro Asn Lys Leu 115 120 125 Tyr Thr Leu Val Thr Tyr Val Pro Val Thr Thr Phe Lys Asn Leu Gln 130 135 140 Thr Val Asn Val Asp Glu Asn 150 151

<210> 2367 <211> 380 <212> PRT <213> Homo sapiens

<400> 2367 Leu Glu Arg Thr Pro Ala Ser Ala Asp Met Ala Trp Thr Lys Tyr Gln 10 Leu Phe Leu Ala Gly Leu Met Leu Val Thr Gly Ser Ile Asn Thr Leu 20 25 Ser Ala Lys Trp Ala Asp Asn Phe Met Ala Glu Gly Cys Gly Gly Ser 35 40 Lys Glu His Ser Phe Gln His Pro Phe Leu Gln Ala Val Gly Met Phe 60 50 55 Leu Gly Glu Phe Ser Cys Leu Ala Ala Phe Tyr Leu Leu Arg Cys Arg 70 Ala Ala Gly Gln Ser Asp Ser Ser Val Asp Pro Gln Gln Pro Phe Asn 90 Pro Leu Leu Phe Leu Pro Pro Ala Leu Cys Asp Met Thr Gly Thr Ser 100 105 110 Leu Met Tyr Val Ala Leu Asn Met Thr Ser Ala Ser Ser Phe Gln Met 115 120 125 Leu Arg Gly Ala Val Ile Ile Phe Thr Gly Leu Phe Ser Val Ala Phe 130 135 140 Leu Gly Arg Arg Leu Val Leu Ser Gln Trp Leu Gly Ile Leu Ala Thr 155 150 Ile Ala Gly Leu Val Val Val Gly Leu Ala Asp Leu Leu Ser Lys His 170 175 165 Asp Ser Gln His Lys Leu Ser Glu Val Ile Thr Gly Asp Leu Leu Ile 185 . 180

Ile Met Ala Gln Ile Ile Val Ala Ile Gln Met Val Leu Glu Glu Lys 195 200 205 Phe Val Tyr Lys His Asn Val His Pro Leu Arg Ala Val Gly Thr Glu 215 220 Gly Leu Phe Gly Phe Val Ile Leu Ser Leu Leu Leu Val Pro Met Tyr 230 235 Tyr Ile Pro Ala Gly Ser Phe Ser Gly Asn Pro Arg Gly Thr Leu Glu 250 Asp Ala Leu Asp Ala Phe Cys Gln Val Gly Gln Gln Pro Leu Ile Ala 265 260 Val Ala Leu Leu Gly Asn Ile Ser Ser Ile Ala Phe Phe Asn Phe Ala 280 285 Gly Ile Ser Val Thr Lys Glu Leu Ser Ala Thr Thr Arg Met Val Leu 295 300 Asp Ser Leu Arg Thr Val Val Ile Trp Ala Leu Ser Leu Ala Leu Gly 310 315 Trp Glu Ala Phe His Ala Leu Gln Ile Leu Gly Phe Leu Ile Leu Leu 330 335 325 Ile Gly Thr Ala Leu Tyr Asn Gly Leu His Arg Pro Leu Leu Gly Arg 340 345 350 Leu Ser Arg Gly Arg Pro Leu Ala Glu Glu Ser Glu Gln Glu Arg Leu 355 360 365 Leu Gly Gly Thr Arg Thr Pro Ile Asn Asp Ala Ser 370 375

<210> 2368 <211> 123 <212> PRT <213> Homo sapiens

(213) Homo Bapiens

<400> 2368 Ser Pro Phe Trp Thr Glu Lys Arg Arg Met Glu Lys Pro Leu Phe Pro 10 Leu Val Pro Leu His Trp Phe Gly Phe Gly Tyr Thr Ala Leu Val Val 20 25 Ser Gly Gly Ile Val Gly Tyr Val Lys Thr Gly Ser Val Pro Ser Leu 40 Ala Ala Gly Leu Leu Phe Gly Ser Leu Ala Gly Leu Gly Ala Tyr Gln 55 60 Leu Tyr Gln Asp Pro Arg Asn Val Trp Gly Phe Leu Ala Ala Thr Ser 70 75 Val Thr Phe Val Gly Val Met Gly Met Arg Ser Tyr Tyr Gly Lys 90 Phe Met Pro Val Gly Leu Ile Ala Gly Ala Ser Leu Leu Met Ala Ala 100 105 Lys Val Gly Val Arg Met Leu Met Thr Ser Asp 120 123

<210> 2369 <211> 595 <212> PRT <213> Homo sapiens

His Pro Asp Ala Gln Ala Glu Val Arg Leu Ser Val Pro Pro Leu Val Glu Val Met Arg Gly Lys Ser Val Ile Leu Asp Cys Thr Pro Thr Gly Thr His Asp His Tyr Met Leu Glu Trp Phe Leu Thr Asp Arg Ser Gly Ala Arg Pro Arg Leu Ala Ser Ala Glu Met Gln Gly Ser Glu Leu Gln Val Thr Met His Asp Thr Arg Gly Arg Ser Pro Pro Tyr Gln Leu Asp Ser Gln Gly Arg Leu Val Leu Ala Glu Ala Gln Val Gly Asp Glu Arg Asp Tyr Val Cys Val Val Arg Ala Gly Ala Ala Gly Thr Ala Glu Ala Ala Ala Arg Leu Asn Val Phe Ala Lys Pro Glu Ala Thr Glu Val Ser Pro Asn Lys Gly Thr Leu Ser Val Met Glu Asp Ser Ala Gln Glu Ile Ala Thr Ser Asn Ser Arg Asn Gly Asn Pro Ala Pro Lys Ile Thr Trp Tyr Arg Asn Gly Gln Arg Leu Glu Val Pro Val Glu Met Asn Pro Glu Gly Tyr Met Thr Ser Arg Thr Val Arg Glu Ala Ser Gly Leu Leu Ser Leu Thr Ser Thr Leu Tyr Leu Arg Leu Arg Lys Asp Asp Arg Asp Ala 230 235 Ser Phe His Cys Ala Ala His Tyr Ser Leu Pro Glu Gly Arg His Gly 245 250 Arg Leu Asp Ser Pro Thr Phe His Leu Thr Leu His Tyr Pro Thr Glu His Val Gln Phe Trp Val Gly Ser Pro Ser Thr Pro Ala Gly Trp Val Arg Glu Gly Asp Thr Val Gln Leu Leu Cys Arg Gly Asp Gly Ser Pro Ser Pro Glu Tyr Thr Leu Phe Arg Leu Gln Asp Glu Gln Glu Glu Val Leu Asn Val Asn Leu Glu Gly Asn Leu Thr Leu Glu Gly Val Thr Arg Gly Gln Ser Gly Thr Tyr Gly Cys Arg Val Glu Asp Tyr Asp Ala Ala Asp Asp Val Gln Leu Ser Lys Thr Leu Glu Leu Arg Val Ala Tyr Leu Asp Pro Leu Glu Leu Ser Glu Gly Lys Val Leu Ser Leu Pro Leu Asn Ser Arg Ala Val Val Asn Cys Ser Val His Gly Leu Pro Thr Pro Ala Leu Arg Trp Thr Lys Asp Ser Thr Pro Leu Gly Asp Gly Pro Met Leu Ser Leu Ser Ser Ile Thr Phe Asp Ser Asn Gly Thr Tyr Val Cys Glu Ala Ser Leu Pro Thr Val Pro Val Leu Ser Arg Thr Gln Asn Phe Thr Leu Leu Val Gln Gly Ser Pro Glu Leu Lys Thr Ala Glu Ile Glu Pro Lys Ala Asp Gly Ser Trp Arg Glu Gly Asp Glu Val Thr Leu Ile Cys Ser Ala Arg Gly His Pro Asp Pro Lys Leu Ser Trp Ser Gln Leu Gly Gly Ser Pro Ala Glu Pro Ile Pro Gly Arg Gln Gly Trp Val Ser Ser Ser Leu Thr Leu Lys Val Thr Ser Ala Leu Ser Arg Asp Gly Ile Ser Cys Glu Ala Ser Asn Pro His Gly Asn Lys Arg His Val Phe His Phe 

<210> 2370 <211> 399 <212> PRT <213> Homo sapiens

<400> 2370 Pro Arg Val Arg Leu Leu Arg Pro Ser Arg Ser Arg Ser Cys Arg Gly 5 Leu Leu Ser Thr Arg. Ala Pro Gly Pro Ser Pro Phe Arg Ser Leu His 20 25 Ser Ser Pro Leu Leu Pro His Ala Met Lys Ser Pro Phe Tyr Arg Cys 35 40 Gln Asn Thr Thr Ser Val Glu Lys Gly Asn Ser Ala Val Met Gly Gly 55 Val Leu Phe Ser Thr Gly Leu Leu Gly Asn Leu Leu Ala Leu Gly Leu 70 Leu Ala Arg Ser Gly Leu Gly Trp Cys Ser Arg Arg Pro Leu Arg Pro 85 90 Leu Pro Ser Val Phe Tyr Met Leu Val Cys Gly Leu Thr Val Thr Asp 100 105 Leu Leu Gly Lys Cys Leu Leu Ser Pro Val Val Leu Ala Ala Tyr Ala 120 Gln Asn Arg Ser Leu Arg Val Leu Ala Pro Ala Leu Asp Asn Ser Leu 135 140 Cys Gln Ala Phe Ala Phe Phe Met Ser Phe Phe Gly Leu Ser Ser Thr 155 150 Leu Gln Leu Leu Ala Met Ala Leu Glu Cys Trp Leu Ser Leu Gly His 165 170 175 Pro Phe Phe Tyr Arg Arg His Ile Thr Leu Arg Leu Gly Ala Leu Val 185 Ala Pro Val Val Ser Ala Phe Ser Leu Ala Phe Cys Ala Leu Pro Phe 200 195 205 Met Gly Phe Gly Lys Phe Val Gln Tyr Cys Pro Gly Thr Trp Cys Phe 215 220 Ile Gln Met Val His Glu Glu Gly Ser Leu Ser Val Leu Gly Tyr Ser 225 230 235 240 Val Leu Tyr Ser Ser Leu Met Ala Leu Leu Val Leu Ala Thr Val Leu 245 250 Cys Asn Leu Gly Ala Met Arg Asn Leu Tyr Ala Met His Arg Arg Leu 265 260 270 Gln Arg His Pro Arg Ser Cys Thr Arg Asp Cys Ala Glu Pro Arg Ala 280 Asp Gly Arg Glu Ala Ser Pro Gln Pro Leu Glu Glu Leu Asp His Leu 295 300 Leu Leu Leu Ala Leu Met Thr Val Leu Phe Thr Met Cys Ser Leu Pro 310 315 Val Ile Tyr Arg Ala Tyr Tyr Gly Ala Phe Lys Asp Val Lys Glu Lys 330 Asn Arg Thr Ser Glu Glu Ala Glu Asp Leu Arg Ala Leu Arg Phe Leu 345 350 Ser Val Ile Ser Ile Val Asp Pro Trp Ile Phe Ile Ile Phe Arg Ser 360 365

 Pro
 Val
 Phe
 Arg
 Ile
 Phe
 His
 Lys
 Ile
 Phe
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 Arg
 Pro
 Leu
 Arg

 370
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<210> 2371 <211> 79 <212> PRT <213> Homo sapiens

<400> 2371 Arg Arg Gly Glu Ile Asp Met Ala Thr Glu Gly Asp Val Glu Leu Glu 10 5 Leu Glu Thr Glu Thr Ser Gly Pro Glu Arg Pro Pro Glu Lys Pro Arg 25 20 Lys His Asp Ser Gly Ala Ala Asp Leu Glu Arg Val Thr Asp Tyr Ala 45 40 35 Glu Glu Lys Glu Ile Gln Ser Ser Asn Leu Glu Thr Ala Met Ser Val 60 50 55 Ile Gly Asp Arg Arg Ser Arg Glu Gln Lys Ala Lys Gln Glu Arg 70 75

<210> 2372 <211> 149 <212> PRT <213> Homo sapiens

<400> 2372 Arg Lys Glu Arg Arg Arg Arg Arg Arg Met Glu Ala Val Val Phe 1 5 10 Val Phe Ser Leu Leu Asp Cys Cys Ala Leu Ile Phe Leu Ser Val Tyr 25 20 Phe Ile Ile Thr Leu Ser Asp Leu Glu Cys Asp Tyr Ile Asn Ala Arg 40 Ser Cys Cys Ser Lys Leu Asn Lys Trp Val Ile Pro Glu Leu Ile Gly
50 55 60 His Thr Ile Val Thr Val Leu Leu Leu Met Ser Leu His Trp Phe Ile 75 70 Phe Leu Leu Asn Leu Pro Val Ala Thr Trp Asn Ile Tyr Arg Tyr Ile 85 90 Met Val Pro Ser Gly Asn Met Gly Val Phe Asp Pro Thr Glu Ile His 100 105 Asn Arg Gly Gln Leu Lys Ser His Met Lys Glu Ala Met Ile Lys Leu 120 125 115 Gly Phe His Leu Leu Cys Phe Phe Met Tyr Leu Tyr Ser Met Ile Leu 140 130 Ala Leu Ile Asn Asp 145 149

<210> 2373 <211> 135 <212> PRT <213> Homo sapiens

<400> 2373

Arg Met Met Lys Cys Pro Gln Ala Leu Leu Ala Ile Phe Trp Leu Leu 5 . 10 Leu Ser Trp Val Ser Ser Glu Asp Lys Val Val Gln Ser Pro Leu Ser 25 Leu Val Val His Glu Gly Asp Thr Val Thr Leu Asn Cys Ser Tyr Glu 40 Val Thr Asn Phe Arg Ser Leu Leu Trp Tyr Lys Gln Glu Lys Lys Ala 55 60 Pro Thr Phe Leu Phe Met Leu Thr Ser Ser Gly Ile Glu Lys Lys Ser Gly Arg Leu Ser Ser Ile Leu Asp Lys Glu Leu Ser Ser Ile Leu 85 90 Asn Ile Thr Ala Thr Gln Thr Gly Asp Ser Ala Ile Tyr Leu Cys Ala 100 105 110 Val Glu Ala Gln Cys Ser Leu Val Thr Cys Ser Leu Tyr Ser Asn Ser 120 Thr Ala Glu Ala Leu Gln Leu 130

<210> 2374 <211> 329 <212> PRT <213> Homo sapiens

<400> 2374 Gly Val Arg Leu Arg Tyr Ser Pro Ile Ala Val Val Met Val Gly Glu 10 Ala Gly Arg Asp Leu Arg Arg Arg Ala Val Ala Val Thr Ala Glu 20 25 Lys Met Ala Val Leu Ala Pro Leu Ile Ala Leu Val Tyr Ser Val Pro 40 Arg Leu Ser Arg Trp Leu Ala Gln Pro Tyr Tyr Leu Leu Ser Ala Leu 55 60 Leu Ser Ala Ala Phe Leu Leu Val Arg Lys Leu Pro Pro Leu Cys His 65 70 75 80 Gly Leu Pro Thr Gln Arg Glu Asp Gly Asn Pro Cys Asp Phe Asp Trp 85 90 Arg Glu Val Glu Ile Leu Met Phe Leu Ser Ala Ile Val Met Met Lys 105 Asn Arg Arg Ser Ile Thr Val Glu Gln His Ile Gly Asn Ile Phe Met 115 120 125 Phe Ser Lys Val Ala Asn Thr Ile Leu Phe Phe Arg Leu Asp Ile Arg 140 130 135 Met Gly Leu Leu Tyr Ile Thr Leu Cys Ile Val Phe Leu Met Thr Cys 150 155 Lys Pro Pro Leu Tyr Met Gly Pro Glu Tyr Ile Lys Tyr Phe Asn Asp 165 170 175 Lys Thr Ile Asp Glu Glu Leu Glu Arg Asp Lys Arg Val Thr Trp Ile 180 185 Val Glu Phe Phe Ala Asn Trp Ser Asn Asp Cys Gln Ser Phe Ala Pro 200 Ile Tyr Ala Asp Leu Ser Leu Lys Tyr Asn Cys Thr Gly Leu Asn Phe 215 220 Gly Lys Val Asp Val Gly Arg Tyr Thr Asp Val Ser Thr Arg Tyr Lys 235 230 Val Ser Thr Ser Pro Leu Thr Lys Gln Leu Pro Thr Leu Ile Leu Phe 245 250 Gln Gly Gly Lys Glu Ala Met Arg Arg Pro Gln Ile Asp Lys Lys Gly 260 265 270 Arg Ala Val Ser Trp Thr Phe Ser Glu Glu Asn Val Ile Arg Glu Phe 280

Asn Leu Asn Glu Leu Tyr Gln Arg Ala Lys Lys Leu Ser Lys Ala Gly
290 295 300

Asp Asn Ile Pro Glu Glu Gln Pro Val Ala Ser Thr Pro Thr Thr Val
305 310 315 320

Ser Asp Gly Glu Asn Lys Lys Asp Lys
325 329

<210> 2375 <211> 162 <212> PRT <213> Homo sapiens

<400> 2375 Thr Val Ser Phe His Lys Thr Met Ala Ser Leu Lys Cys Ser Thr Val 5 10 ı Val Cys Val Ile Cys Leu Glu Lys Pro Lys Tyr Arg Cys Pro Ala Cys 25 20 Arg Val Pro Tyr Cys Ser Val Val Cys Phe Arg Lys His Lys Glu Gln 45 40 35 Cys Asn Pro Glu Thr Arg Pro Val Glu Lys Lys Ile Arg Ser Ala Leu 55 60 Pro Thr Lys Thr Val Lys Pro Val Glu Asn Lys Asp Asp Asp Ser 75 70 Ile Ala Asp Phe Leu Asn Ser Asp Glu Glu Glu Asp Arg Val Ser Leu 90 85 Gln Asn Leu Lys Asn Leu Gly Glu Ser Ala Thr Leu Arg Ser Leu Leu 105 110 100 Leu Asn Pro His Leu Arg Gln Leu Met Val Asn Leu Asp Gln Gly Glu 115 120 125 Asp Lys Ala Lys Leu Met Arg Ala Tyr Met Gln Glu Pro Leu Phe Val 140 130 135 Glu Phe Ala Asp Cys Cys Leu Gly Ile Val Glu Pro Ser Gln Asn Glu 145 150 Glu Ser 162

<210> 2376 <211> 161 <212> PRT <213> Homo sapiens

<400> 2376 Val Gly Met Glu Leu Pro Ala Val Asn Leu Lys Val Ile Leu Leu Gly 10 His Trp Leu Leu Thr Thr Trp Gly Cys Ile Val Phe Ser Gly Ser Tyr 25 20 Ala Trp Ala Asn Phe Thr Ile Leu Ala Leu Gly Val Trp Ala Val Ala 45 40 35 Gln Arg Asp Ser Ile Asp Ala Ile Ser Met Phe Leu Gly Gly Leu Leu 55 Ala Thr Ile Phe Leu Asp Ile Val His Ile Ser Ile Phe Tyr Pro Arg 75 65 70 Val Ser Leu Thr Asp Thr Gly Arg Phe Gly Val Gly Met Ala Ile Leu 90 85 Ser Leu Leu Lys Pro Leu Ser Cys Cys Phe Val Tyr His Met Tyr 110 105 100 Arg Glu Arg Gly Gly Glu Leu Leu Val His Thr Gly Phe Leu Gly Ser 120

<210> 2377 <211> 113 <212> PRT <213> Homo sapiens

<400> 2377 Asp Phe Leu Gly Pro Ala Ser Pro Gln Glu Glu Gly Gly Ser Glu Ser 5 10 Ser Thr Met Thr Glu Leu Glu Thr Ala Met Gly Met Ile Ile Asp Val 25 Phe Ser Arg Tyr Ser Gly Ser Glu Gly Ser Thr Gln Thr Leu Thr Lys 40 Gly Glu Leu Lys Val Leu Met Glu Lys Glu Leu Pro Gly Phe Leu Gln Ser Gly Lys Asp Lys Asp Ala Val Asp Lys Leu Leu Lys Asp Leu Asp Ala Asn Gly Asp Ala Gln Val Asp Phe Ser Glu Phe Ile Val Phe Val 85 90 Ala Ala Ile Thr Ser Ala Cys His Lys Tyr Phe Glu Lys Ala Gly Leu 100 105 113

<210> 2378 <211> 314 <212> PRT <213> Homo sapiens

<400> 2378

Lys Met Ala Ala Thr Leu Gly Pro Leu Gly Ser Trp Gln Gln Trp Arg 10 Arg Cys Leu Ser Ala Arg Asp Gly Ser Arg Arg Leu Leu Leu Leu 20 Leu Leu Gly Ser Gly Gln Gly Pro Gln Gln Val Gly Ala Gly Gln Thr · 35 40 Phe Glu Tyr Leu Lys Arg Glu His Ser Leu Ser Lys Pro Tyr Gln Gly 55 Glu Ala Pro Arg Pro Cys Phe Leu Arg Asp Trp Glu Leu Gln Val His 70 Phe Lys Ile His Gly Gln Gly Lys Lys Asn Leu His Gly Asp Gly Leu Ala Ile Trp Tyr Thr Lys Asp Arg Met Gln Pro Gly Pro Val Phe Gly 100 105 110 Asn Met Asp Lys Phe Val Gly Leu Gly Val Phe Val Asp Thr Tyr Pro 120 125 Asn Glu Glu Lys Gln Gln Glu Arg Val Phe Pro Tyr Ile Ser Ala Met 135 140 Val Asn Asn Gly Ser Leu Ser Tyr Asp His Glu Arg Asp Gly Arg Pro 150 155 Thr Glu Leu Gly Gly Cys Thr Ala Ile Val Arg Asn Leu His Tyr Asp 165 170

Thr Phe Leu Val Ile Arg Tyr Val Lys Arg His Leu Thr Ile Met Met 180 185 Asp Ile Asp Gly Lys His Glu Trp Arg Asp Cys Ile Glu Val Pro Gly 200 205 195 Val Arg Leu Pro Arg Gly Tyr Tyr Phe Gly Thr Ser Ser Ile Thr Gly 220 215 Asp Leu Ser Asp Asn His Asp Val Ile Ser Leu Lys Leu Phe Glu Leu 235 230 Thr Val Glu Arg Thr Pro Glu Glu Glu Lys Leu His Arg Asp Val Phe 245 250 255 Leu Pro Ser Val Asp Asn Met Lys Leu Pro Glu Met Thr Ala Pro Leu 260 265 270 Pro Pro Leu Ser Gly Leu Ala Leu Phe Leu Ile Val Phe Phe Ser Leu 280 285 Val Phe Ser Val Phe Ala Ile Val Ile Gly Ile Ile Leu Tyr Asn Lys 290 295 300 Trp Gln Glu Gln Ser Arg Lys Arg Phe Tyr 310 314 305

<210> 2379 <211> 192 <212> PRT <213> Homo sapiens

<400> 2379 Ala Ala Ala Ser His Arg Ser Arg Ala Arg Ser Arg Pro Arg Arg 5 10 15 Val Ser Ser Gly Pro Ala Pro Arg Arg Ala Gln Ser Ser Ala Gly Arg 20 25 30 Val Ala Ser Gly Leu Asp Ser Ala Pro Leu Cys Thr Met Ala Arg Ala 45 35 40 Leu Cys Arg Leu Pro Arg Arg Gly Leu Trp Leu Leu Leu Ala His His 60 50 55 Leu Phe Met Thr Thr Ala Cys Gln Glu Ala Asn Tyr Gly Ala Leu Leu 70 75 Arg Glu Leu Cys Leu Thr Gln Phe Gln Val Asp Met Glu Ala Val Gly 90 85 Glu Thr Leu Trp Cys Asp Trp Gly Arg Thr Ile Arg Ser Tyr Arg Glu 100 105 110 Leu Ala Asp Cys Thr Trp His Met Ala Glu Lys Leu Gly Cys Phe Trp 115 120 125 Pro Asn Ala Glu Val Asp Arg Phe Phe Leu Ala Val His Gly Arg Tyr 135 Phe Arg Ser Cys Pro Ile Ser Gly Arg Ala Val Arg Asp Pro Pro Gly 150 155 Ser Ile Leu Tyr Pro Phe Ile Val Val Pro Ile Thr Val Thr Leu Leu 170 165 Val Thr Ala Leu Val Val Trp Gln Ser Lys Arg Thr Glu Gly Ile Val 190 192 185

<210> 2380 <211> 326 <212> PRT <213> Homo sapiens

<400> 2380

Asp Ser Ser Thr Val Lys Gly Gly Ser Glu Ser Arg His Leu Cys Leu 10 Ile Pro Asp Leu Lys Gly Lys Ala Arg Thr Arg Glu Ala Ser Ser Gly 25 Ser Arg Thr Cys Gly Arg Arg Thr Ser Leu Cys Thr Ser Ala Lys Ser 40 Ser Trp Thr Tyr Arg Ser Gly Arg Leu Ser Trp Gln Ser Ile Lys Gly Thr His Leu Thr Ile Thr Gln Ala Leu Arg Gln Pro Leu His Arg Ala 70 75 Pro Leu Leu Pro Gly Gln Leu Cys Trp Ser Pro Arg Pro Leu Glu Lys 90 85 Asn Lys Ala Met Gly Arg Pro Leu Leu Leu Pro Leu Leu Leu Leu 105 Gln Pro Pro Ala Phe Leu Gln Pro Gly Gly Ser Thr Gly Ser Gly Pro 120 125 Ser Tyr Leu Tyr Gly Val Thr Gln Pro Lys His Leu Ser Ala Ser Met 135 140 Gly Gly Ser Val Glu Ile Pro Phe Ser Phe Tyr Tyr Pro Trp Glu Leu 150 155 Ala Ile Val Pro Asn Val Arg Ile Ser Trp Arg Arg Gly His Phe His 165 170 Gly Gln Ser Phe Tyr Ser Thr Arg Pro Pro Ser Ile His Lys Asp Tyr 185 190 180 Val Asn Arg Leu Phe Leu Asn Trp Thr Glu Gly Gln Glu Ser Gly Phe . 200 Leu Arg Ile Ser Asn Leu Arg Lys Glu Asp Gln Ser Val Tyr Phe Cys 215 220 Arg Val Glu Leu Asp Thr Arg Arg Ser Gly Arg Gln Gln Leu Gln Ser 235 230 Ile Lys Gly Thr Lys Leu Thr Ile Thr Gln Ala Val Thr Thr Thr 250 245 Thr Trp Arg Pro Ser Ser Thr Thr Thr Ile Ala Gly Leu Arg Val Thr 265 Glu Ser Lys Gly His Ser Glu Ser Trp His Leu Ser Leu Asp Thr Ala 275 280 285 Ile Arg Val Ala Leu Ala Val Ala Val Leu Lys Thr Val Ile Leu Gly 290 295 300 Leu Leu Cys Leu Leu Leu Trp Trp Arg Arg Arg Lys Gly Ser Arg 310 315 Ala Pro Ser Ser Asp Phe 325 326

<210> 2381 <211> 188 <212> PRT <213> Homo sapiens

<400> 2381 Arg Arg Thr Ala Gly Ile Tyr Pro Cys Phe Pro Lys Pro Gly Arg Thr Arg His Ala Leu Cys Ser Val Val Leu Leu Leu Thr Gly Gln Leu 20 25 Ala Phe Asp Asp Phe Gln Glu Ser Cys Ala Met Met Trp Gln Lys Tyr . 40 45 Ala Gly Ser Arg Arg Ser Met Pro Leu Gly Ala Arg Ile Leu Phe His 55 60 Gly Val Phe Tyr Ala Gly Gly Phe Ala Ile Val Tyr Tyr Leu Ile Gln 70 75 Lys Phe His Ser Arg Ala Leu Tyr Tyr Lys Leu Ala Val Glu Gln Leu 90

Gln Ser His Pro Glu Ala Gln Glu Ala Leu Gly Pro Pro Leu Asn Ile 105 100 His Tyr Leu Lys Leu Ile Asp Arg Glu Asn Phe Val Asp Ile Val Asp 115 120 Ala Lys Leu Lys Ile Pro Val Ser Gly Ser Lys Ser Glu Gly Leu Leu 140 130 135 Tyr Val His Ser Ser Arg Gly Gly Pro Phe Gln Arg Trp His Leu Asp 155 145 150 Glu Val Phe Leu Glu Leu Lys Asp Gly Gln Gln Ile Pro Val Phe Lys 165 170 Leu Ser Gly Glu Asn Gly Asp Glu Val Lys Lys Glu 180 185 188

<210> 2382 <211> 532 <212> PRT <213> Homo sapiens

<400> 2382 Arg Arg Arg Pro Arg Leu Leu Pro Gly Ala Glu Pro Cys Glu Pro Arg 10 Val Gly Pro Arg Arg Ala Asp Met Gly Cys Ser Ala Lys Ala Arg Trp 20 Ala Ala Gly Ala Leu Gly Val Ala Gly Leu Leu Cys Ala Val Leu Gly 45 40 35 Ala Val Met Ile Val Met Val Pro Ser Leu Ile Lys Gln Gln Val Leu 55 Lys Asn Val Arg Ile Asp Pro Ser Ser Leu Ser Phe Asn Met Trp Lys 65 70 75 80 Glu Ile Pro Ile Pro Phe Tyr Leu Ser Val Tyr Phe Phe Asp Val Met 90 85 Asn Pro Ser Glu Ile Leu Lys Gly Glu Lys Pro Gln Val Arg Glu Arg 100 105 Gly Pro Tyr Val Tyr Arg Glu Phe Arg His Lys Ser Asn Ile Thr Phe 125 120 Asn Asn Asn Asp Thr Val Ser Phe Leu Glu Tyr Arg Thr Phe Gln Phe 140 135 Gln Pro Ser Lys Ser His Gly Ser Glu Ser Asp Tyr Ile Val Met Pro 145 150 155 Asn Ile Leu Val Leu Gly Ala Ala Val Met Met Glu Asn Lys Pro Met 170 165 Thr Leu Lys Leu Ile Met Thr Leu Ala Phe Thr Thr Leu Gly Glu Arg 180 185 190 Ala Phe Met Asn Arg Thr Val Gly Glu Ile Met Trp Gly Tyr Lys Asp 205 200 Pro Leu Val Asn Leu Ile Asn Lys Tyr Phe Pro Gly Met Phe Pro Phe 220 . 215 Lys Asp Lys Phe Gly Leu Phe Ala Glu Leu Asn Asn Ser Asp Ser Gly 225 230 235 Leu Phe Thr Gly Phe Thr Gly Val Gln Asn Ile Ser Arg Ile His Leu 245 250 255 Val Asp Lys Trp Asn Gly Leu Ser Lys Val Asp Phe Trp His Ser Asp 260 265 270 Gln Cys Asn Met Ile Asn Gly Thr Ser Gly Gln Met Trp Pro Pro Phe 285 280 Met Thr Pro Glu Ser Ser Leu Glu Phe Tyr Ser Pro Glu Ala Cys Arg 300 295 Ser Met Lys Leu Met Tyr Lys Glu Ser Gly Val Phe Glu Gly Ile Pro 305 310 315 Thr Tyr Arg Phe Val Ala Pro Lys Thr Leu Phe Ala Asn Gly Ser Ile 330 325

Tyr Pro Pro Asn Glu Gly Phe Cys Pro Cys Leu Glu Ser Gly Ile Gln 340 345 350 Asn Val Ser Thr Cys Arg Phe Ser Ala Pro Leu Phe Leu Ser His Pro , 360 His Phe Leu Asn Ala Asp Pro Val Leu Ala Glu Ala Val Thr Gly Leu 375 380 His Pro Asn Gln Glu Ala His Ser Leu Phe Leu Asp Ile His Pro Val 390 395 Thr Gly Ile Pro Met Asn Cys Ser Val Lys Leu Gln Leu Ser Leu Tyr 405 410 Met Lys Ser Val Ala Gly Ile Gly Gln Thr Gly Lys Ile Glu Pro Val 430 420 425 Val Leu Pro Leu Leu Trp Phe Ala Glu Ser Gly Ala Met Glu Gly Glu 435 440 445 Thr Leu His Thr Phe Tyr Thr Gln Leu Val Leu Met Pro Lys Val Met 455 460 His Tyr Ala Gln Tyr Val Leu Leu Ala Leu Gly Cys Val Leu Leu Leu 465 470 475 480 Val Pro Val Ile Cys Gln Ile Arg Ser Gln Glu Lys Cys Tyr Leu Phe 485 490 495 Trp Ser Ser Ser Lys Lys Gly Ser Lys Asp Lys Glu Ala Ile Gln Ala 510 500 505 Tyr Ser Glu Ser Leu Met Thr Ser Ala Pro Lys Gly Ser Val Leu Gln 515 520 Glu Ala Lys Leu 530 532

<210> 2383 <211> 57 <212> PRT <213> Homo sapiens

Ser Leu Cys Pro Pro Leu Thr Gln Ala 50 55 57

> <210> 2384 <211> 158 <212> PRT <213> Homo sapiens

PCT/US01/03800 WO 01/57188

Ala Pro Thr Ser Trp Ile Ser Glu Ser Gln Val Phe Gln Thr Thr Glu 90 85 Val Leu Thr Thr Arg Ile Thr Glu Leu Gln Arg Arg Phe Pro Thr Trp 105 110 100 Thr Pro Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly 120 125 115 Ala Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn 140 135 130 Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe 155 150

<210> 2385 <211> 180 <212> PRT

<213> Homo sapiens

<400> 2385 Ala Met Ala Ser Thr Leu Glu Tyr Ser Pro Ser Pro Leu Arg Arg Leu 10 1 Val Gly Pro Ala Ala Gly Phe Ser Arg Ala Ala Arg Ala Asp Leu Ser 30 25 20 Trp Asp Pro Met Ala Phe Phe Thr Gly Leu Trp Gly Pro Phe Thr Cys 40 45 35 Val Ser Arg Val Leu Ser His His Cys Phe Ser Thr Thr Gly Ser Leu 55 50 Ser Ala Ile Gln Lys Met Thr Arg Val Arg Val Val Asp Asn Ser Ala 75 70 Leu Gly Asn Ser Pro Tyr His Arg Ala Pro Arg Cys Ile His Val Tyr 90 Lys Lys Asn Gly Val Gly Lys Val Gly Asp Gln Ile Leu Leu Ala Ile 110 105 100 Lys Gly Gln Lys Lys Ala Leu Ile Val Gly His Cys Met Pro Gly
115 120 125 Pro Arg Met Thr Pro Arg Phe Asp Ser Asn Asn Val Val Leu Ile Glu 135 130 Asp Asn Gly Asn Pro Val Gly Thr Arg Ile Lys Thr Pro Ile Pro Thr 150 · 155 Ser Leu Arg Lys Arg Glu Gly Glu Tyr Ser Lys Val Leu Ala Ile Ala 170 Gln Asn Phe Val 180

<210> 2386 <211> 187 <212> PRT <213> Homo sapiens

<400> 2386 Pro Thr Arg Ala His Ser Phe Asp Leu Cys Cys Ser Pro Cys Arg Arg 1.5 10 5 Arg Leu Leu Gly Arg Glu Glu Ala Gly Glu Glu Pro Thr Ser Pro Val 25 20 Thr Gln Tyr Leu Gln Pro Arg Ser Pro Glu Glu Cys Lys Met Phe Ala 40 Cys Ala Lys Leu Ala Cys Thr Pro Ser Leu Ile Arg Ala Gly Ser Arg 60 55 Val Ala Tyr Arg Pro Ile Ser Ala Ser Val Leu Ser Arg Pro Glu Ala 70

PCT/US01/03800 WO 01/57188

Ser Arg Thr Gly Glu Gly Ser Thr Val Phe Asn Gly Ala Gln Asn Gly 90 Val Ser Gln Leu Ile Gln Arg Glu Phe Gln Thr Ser Ala Ile Ser Arg 105 Asp Ile Asp Thr Ala Ala Lys Phe Ile Gly Ala Gly Ala Ala Thr Val 120 Gly Val Ala Gly Ser Gly Ala Gly Ile Gly Thr Val Phe Gly Ser Leu 135 Ile Ile Gly Tyr Ala Arg Asn Pro Ser Leu Lys Gln Gln Leu Phe Ser 150 155 Tyr Ala Ile Leu Gly Phe Ala Leu Ser Glu Ala Met Gly Leu Phe Cys 165 170 Leu Met Val Ala Phe Leu Ile Leu Phe Ala Met

180 185

> <210> 2387 <211> 787 <212> PRT <213> Homo sapiens

<400> 2387 Ser Pro Gly Pro Ser Leu Pro Glu Ser Ala Glu Ser Leu Asp Gly Ser Gln Glu Asp Lys Pro Arg Gly Ser Cys Ala Glu Pro Thr Phe Thr Asp 25 Thr Gly Met Val Ala His Ile Asn Asn Ser Arg Leu Lys Ala Lys Gly Val Gly Gln His Asp Asn Ala Gln Asn Phe Gly Asn Gln Ser Phe Glu Glu Leu Arg Ala Ala Cys Leu Arg Lys Gly Glu Leu Phe Glu Asp Pro 70 75 Leu Phe Pro Ala Glu Pro Ser Ser Leu Gly Phe Lys Asp Leu Gly Pro 85 90 Asn Ser Lys Asn Val Gln Asn Ile Ser Trp Gln Arg Pro Lys Asp Ile 105 Ile Asn Asn Pro Leu Phe Ile Met Asp Gly Ile Ser Pro Thr Asp Ile 120 125 Cys Gln Gly Ile Leu Gly Asp Cys Trp Leu Leu Ala Ala Ile Gly Ser 135 140 Leu Thr Thr Cys Pro Lys Leu Leu Tyr Arg Val Val Pro Arg Gly Gln 155 150 Ser Phe Lys Lys Asn Tyr Ala Gly Ile Phe His Phe Gln Ile Trp Gln 165 170 175 Phe Gly Gln Trp Val Asn Val Val Val Asp Asp Arg Leu Pro Thr Lys 180 185 Asn Asp Lys Leu Val Phe Val His Ser Thr Glu Arg Ser Glu Phe Trp 195 200 Ser Ala Leu Leu Glu Lys Ala Tyr Ala Lys Leu Ser Gly Ser Tyr Glu 215 220 Ala Leu Ser Gly Gly Ser Thr Met Glu Gly Leu Glu Asp Phe Thr Gly 230 235 Gly Val Ala Gln Ser Phe Gln Leu Gln Arg Pro Pro Gln Asn Leu Leu 245 250 Arg Leu Leu Arg Lys Ala Val Glu Arg Ser Ser Leu Met Gly Cys Ser 260 265 Ile Glu Val Thr Ser Asp Ser Glu Leu Glu Ser Met Thr Asp Lys Met 280 285 Leu Val Arg Gly His Ala Tyr Ser Val Thr Gly Leu Gln Asp Val His 295 300 Tyr Arg Gly Lys Met Glu Thr Leu Ile Arg Val Arg Asn Pro Trp Gly

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Arg Ile Glu Trp Asn Gly Ala Trp Ser Asp Ser Ala Arg Glu Trp Glu
                              330
              325
Glu Val Ala Ser Asp Ile Gln Met Gln Leu Leu His Lys Thr Glu Asp
                                             350
                           345
Gly Glu Phe Trp Met Ser Tyr Gln Asp Phe Leu Asn Asn Phe Thr Leu
                                365
                        360
      355
Leu Glu Ile Cys Asn Leu Thr Pro Asp Thr Leu Ser Gly Asp Tyr Lys
                                      380
                   375
 370
Ser Tyr Trp His Thr Thr Phe Tyr Glu Gly Ser Trp Arg Thr Gly Ser
                                   395
                390
Ser Ala Gly Gly Cys Arg Asn His Pro Gly Thr Phe Trp Thr Asn Pro
405 410 415
             405
Gln Phe Lys Ile Ser Leu Pro Glu Gly Asp Asp Pro Glu Asp Asp Ala
                                      430
                    425
        420
Glu Gly Asn Val Val Cys Thr Cys Leu Val Ala Leu Met Gln Lys
                        440
      435
Asn Trp Arg His Ala Arg Gln Gln Gly Ala Gln Leu Gln Thr Ile Gly
                    455
Phe Val Leu Tyr Ala Val Pro Lys Glu Phe Gln Asn Ile Gln Asp Val
                            475
                 470
His Leu Lys Lys Glu Phe Phe Thr Lys Tyr Gln Asp His Gly Phe Ser
             485
                               490
Glu Ile Phe Thr Asn Ser Arg Glu Val Ser Ser Gln Leu Arg Leu Pro
                           505
         500
Pro Gly Glu Tyr Ile Ile Ile Pro Ser Thr Phe Glu Pro His Arg Asp
              520
                                         525
      515
Ala Asp Phe Leu Leu Arg Val Phe Thr Glu Lys His Ser Glu Ser Trp
       535
                                    540
   530
Glu Leu Asp Glu Val Asn Tyr Ala Glu Gln Leu Gln Glu Glu Lys Val
                                 555
                 550
Ser Glu Asp Asp Met Asp Gln Asp Phe Leu His Leu Phe Lys Ile Val
                        570
Ala Gly Glu Gly Lys Glu Ile Gly Val Tyr Glu Leu Gln Arg Leu Leu
                                   590
                           585
         580
Asn Arg Met Ala Ile Lys Phe Lys Ser Phe Lys Thr Lys Gly Phe Gly
                                 605
                        600
Leu Asp Ala Cys Arg Cys Met Ile Asn Leu Met Asp Lys Asp Gly Ser
                    615
Gly Lys Leu Gly Leu Leu Glu Phe Lys Ile Leu Trp Lys Lys Leu Lys
                                  635
                630
Lys Trp Met Asp Ile Phe Arg Glu Cys Asp Gln Asp His Ser Gly Thr
                               650
              645
Leu Asn Ser Tyr Glu Met Arg Leu Val Ile Glu Lys Ala Gly Ile Lys
                                      670
         660
                            665
Leu Asn Asn Lys Val Met Gln Val Leu Val Ala Arg Tyr Ala Asp Asp
                                          685
     675
                        680
Asp Leu Ile Ile Asp Phe Asp Ser Phe Ile Ser Cys Phe Leu Arg Leu
                                      700
                    695
Lys Thr Met Phe Thr Phe Phe Leu Thr Met Asp Pro Lys Asn Thr Gly
                                    715
                 710
His Ile Cys Leu Ser Leu Glu Gln Val Leu Gly Glu Gly Trp Glu Gly
              725
                        730
Ile Cys Arg Ile Ala Pro Ala Cys Pro Ser Thr Pro Pro Pro Pro Ser
                                    750
                          745
           740
Ser Asp Val Pro Gly Pro Ala Ser Cys Pro Arg Leu Phe Pro Pro Trp
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Asp Leu Leu Pro Val Ser Thr Val Ala Ala Asp Asp His Val Gly Ile
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Glu Ala Leu
785 787
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<210> 2388

<211> 496 <212> PRT

<213> Homo sapiens

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Ala Leu Val Leu Phe Ser Val Gly Ser Ser Leu Ile Phe Leu Gly Ala 465 470 5 5 480

Tyr Phe Asn Arg Val Pro Asp Leu Pro Tyr Ala Pro Cys Ile Gln Pro 485 5 496

<210> 2389 <211> 300 <212> PRT <213> Homo sapiens

<400> 2389 Pro Gly Arg Glu Arg Pro Gly Gly Gly Ala Arg Arg Pro Gln 1 5 10 His Leu Pro Ala Leu Leu Pro Ser Glu Arg Pro Asp Cys Ala Thr Leu 25 · 20 Gln Ala Met Glu Asn Glu Leu Pro Val Pro His Thr Ser Ser Ser Ala 45 35 40 Cys Ala Thr Ser Ser Thr Ser Gly Ala Ser Ser Ser Ser Gly Cys Asn 60 55 Asn Ser Ser Ser Gly Gly Ser Gly Arg Pro Thr Gly Pro Gln Ile Ser 70 75 Val Tyr Ser Gly Ile Pro Asp Arg Gln Thr Val Gln Val Ile Gln Gln 90 85 Ala Leu His Arg Gln Pro Ser Thr Ala Ala Gln Tyr Leu Gln Gln Met 100 105 110 Tyr Ala Ala Gln Gln His Leu Met Leu Gln Thr Ala Ala Leu Gln 120 125 115 Gln Gln His Leu Ser Ser Ala Gln Leu Gln Ser Leu Ala Ala Val Gln 130 135 140 Gln Ala Ser Leu Val Ser Asn Arg Gln Gly Ser Thr Ser Gly Ser Asn 155 150 145 Val Ser Ala Gln Ala Pro Ala Gln Ser Ser Ser Ile Asn Leu Ala Ala 170 165 Ser Pro Ala Ala Ala Gln Leu Leu Asn Arg Ala Gln Ser Val Asn Ser 190 185 180 Ala Ala Ala Ser Gly Ile Ala Gln Gln Ala Val Leu Leu Gly Asn Thr 200 195 Ser Ser Pro Ala Leu Thr Ala Ser Gln Ala Gln Met Tyr Leu Arg Ala 220 215 Gln Met Leu Ile Phe Thr Pro Thr Ala Thr Val Ala Thr Val Gln Pro 230 235 240 Glu Leu Gly Thr Gly Ser Pro Ala Arg Pro Pro Thr Pro Ala Gln Val 250 255 245 Gln Asn Leu Thr Leu Arg Thr Gln Gln Thr Pro Ala Ala Ala Ser 270 265 260 Gly Pro Thr Pro Thr Gln Pro Val Leu Pro Ser Leu Ala Leu Lys Pro 280 275 Thr Pro Gly Gly Ser Gln Pro Leu Pro Thr Pro Ala 295

<210> 2390 <211> 430 <212> PRT <213> Homo sapiens

<400> 2390

Ala Ser Gln Leu Ala Phe Gly Gly Lys Leu Thr Ser Thr Pro Ser Arg 10 Asp Phe Gln Gly Cys Gly Arg Gly Ala Val Thr Cys Cys Ser Phe His 25 Glu His Arg His Gln Ser Gly Arg Cys Leu Ser Thr Gly Met Ala Pro 40 Asn Leu Lys Gly Arg Pro Arg Lys Lys Pro Cys Pro Gln Arg Arg 60 Asp Ser Phe Ser Gly Val Lys Asp Ser Asn Asn Asn Ser Asp Gly Lys 70 75 Ala Val Ala Lys Val Lys Cys Glu Ala Arg Ser Ala Leu Thr Lys Pro 85 90 Lys Asn Asn His Asn Cys Lys Lys Val Ser Asn Glu Glu Lys Pro Lys 100 105 110 Val Ala Ile Gly Glu Glu Cys Arg Ala Asp Glu Gln Ala Phe Leu Val 125 115 120 Ala Leu Tyr Lys Tyr Met Lys Glu Arg Lys Thr Pro Ile Glu Arg Ile 135 140 Pro Tyr Leu Gly Phe Lys Gln Ile Asn Leu Trp Thr Met Phe Gln Ala 150 155 Ala Gln Lys Leu Gly Gly Tyr Glu Thr Ile Thr Ala Arg Arg Gln Trp 165 170 Lys His Ile Tyr Asp Glu Leu Gly Gly Asn Pro Gly Ser Thr Ser Ala 180 Ala Thr Cys Thr Arg Arg His Tyr Glu Arg Leu Ile Leu Pro Tyr Glu 195 200 Arg Phe Ile Lys Gly Glu Glu Asp Lys Pro Leu Pro Pro Ile Lys Pro 215 220 Arg Lys Gln Glu Asn Ser Ser Gln Glu Asn Glu Asn Lys Thr Lys Val 230 235 Ser Gly Thr Lys Arg Ile Lys His Glu Ile Pro Lys Ser Lys Lys Glu . 245 250 Lys Glu Asn Ala Pro Lys Pro Gln Asp Ala Ala Glu Val Ser Ser Glu 265 260 270 Gln Glu Lys Glu Gln Glu Thr Leu Ile Ser Gln Lys Ser Ile Pro Glu 275 . 280 285 Pro Leu Pro Ala Ala Asp Met Lys Lys Ile Glu Gly Tyr Gln Glu 295 300 Phe Ser Ala Lys Pro Leu Ala Ser Arg Val Asp Pro Glu Lys Asp Asn 310 315 Glu Thr Asp Gln Gly Ser Asn Ser Glu Lys Val Ala Glu Glu Ala Gly 325 330 Glu Lys Gly Pro Thr Pro Pro Leu Pro Ser Ala Pro Leu Ala Pro Glu 340 345 Lys Asp Ser Ala Leu Val Pro Gly Ala Ser Lys Gln Pro Leu Thr Ser 360 Pro Ser Ala Leu Val Asp Ser Lys Gln Glu Ser Lys Leu Cys Cys Phe 375 380 Thr Glu Ser Pro Glu Ser Glu Pro Gln Glu Ala Ser Phe Pro Arg Leu 390 395 Pro His His Thr Gly His Arg Trp Gln Thr Arg Met Arg Arg Met 405 410 Thr Asn Cys Pro Pro Trp Gln Ile Thr Leu Pro Thr Ala Pro 425

<210> 2391 <211> 459 <212> PRT <213> Homo sapiens

<400> 2391

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Leu Leu Gln Glu Met Cys Thr Lys Thr Ile Pro Val Leu Trp Gly Cys
Phe Leu Leu Trp Asn Leu Tyr Val Ser Ser Ser Gln Thr Ile Tyr Pro
                          25
         20
Gly Ile Lys Ala Arg Ile Thr Gln Arg Ala Leu Asp Tyr Gly Val Gln
                        40
Ala Gly Met Lys Met Ile Glu Gln Met Leu Lys Glu Lys Lys Leu Pro
                     55
Asp Leu Ser Gly Ser Glu Ser Leu Glu Phe Leu Lys Val Asp Tyr Val
            70
Asn Tyr Asn Phe Ser Asn Ile Lys Ile Ser Ala Phe Ser Phe Pro Asn
                               90
              85
Thr Ser Leu Ala Phe Val Pro Gly Val Gly Ile Lys Ala Leu Thr Asn
         100 105
His Gly Thr Ala Asn Ile Ser Thr Asp Trp Gly Phe Glu Ser Pro Leu
                       120
                                       125
Phe Val Leu Tyr Asn Ser Phe Ala Glu Pro Met Glu Lys Pro Ile Leu
                    135
                            . 140
Lys Asn Leu Asn Glu Met Leu Cys Pro Ile Ile Ala Ser Glu Val Lys
        150 . 155
Ala Leu Asn Ala Asn Leu Ser Thr Leu Glu Val Leu Thr Lys Ile Asp
           165 170 175
Asn Tyr Thr Leu Leu Asp Tyr Ser Leu Ile Ser Ser Pro Glu Ile Thr
180 195 190
 Glu Asn Tyr Leu Asp Leu Asn Leu Lys Gly Val Phe Tyr Pro Leu Glu
                                205
     195
                      200
 Asn Leu Thr Asp Pro Pro Phe Ser Pro Val Pro Phe Val Leu Pro Glu
  210 215
                                     220
Arg Ser Asn Ser Met Leu Tyr Ile Gly Ile Ala Glu Tyr Phe Phe Lys
        230
                         235
 Ser Ala Ser Phe Ala His Phe Thr Ala Gly Val Phe Asn Val Thr Leu
                   250
           245
 Ser Thr Glu Glu Ile Ser Asn His Phe Val Gln Asn Ser Gln Gly Leu
                           265
          260
 Gly Asn Val Leu Ser Arg Ile Ala Glu Ile Tyr Ile Leu Ser Gln Pro
                       280
 Phe Met Val Arg Ile Met Ala Thr Glu Pro Pro Ile Ile Asn Leu Gln
                   295
                                   300
 Pro Gly Asn Phe Thr Leu Asp Ile Pro Ala Ser Ile Met Met Leu Thr
                                315
        310
 Gln Pro Lys Asn Ser Thr Val Glu Thr Ile Val Ser Met Asp Phe Val
           325 330
Ala Ser Thr Ser Val Gly Leu Val Ile Leu Gly Gln Arg Leu Val Cys 340 345
         340
 Ser Leu Ser Leu Asn Arg Phe Arg Leu Ala Leu Pro Glu Ser Asn Arg
     355 360
 Ser Asn Ile Glu Val Leu Arg Phe Glu Asn Ile Leu Ser Ser Ile Leu
                                     380
         375
 His Phe Gly Val Leu Pro Leu Ala Asn Ala Lys Leu Gln Gly Phe
               390 395
 Pro Leu Pro Asn Pro His Lys Phe Leu Phe Val Asn Ser Asp Ile Glu
405 410 415
 Val Leu Glu Gly Phe Leu Leu Ile Ser Thr Asp Leu Lys Tyr Glu Thr 420 425 430
 Ser Ser Lys Gln Gln Pro Ser Phe His Val Trp Glu Gly Leu Asn Leu
      435 440
 Ile Ser Arg Gln Trp Arg Gly Lys Ser Ala Pro
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<210> 2392 <211> 122 <212> PRT

## <213> Homo sapiens

<400> 2392 Ala Arg Arg Ile Ala Arg Thr Arg Glu Ser Lys Ala Ala Val Ser Gln 10 Asp Asn Val Pro Ala Leu Gln Pro Gly Lys Lys Lys Leu Arg Leu 20 25 Gly Gly Lys Lys Lys Phe Lys Phe Phe Arg Leu Pro Lys Glu Phe 40 Lys Lys Gln Leu Met Tyr Ser Pro Ser Asn Phe Lys Lys Met Thr Ser 55 60 Leu Ala Gly Asn Thr Val Gln Cys Leu Asn Lys Leu Lys Tyr Val Ile 75 70 Tyr Ser Ala Gln Tyr Pro Ala Tyr Gly Asn Ile Thr Thr Leu Asp Met 85 90 Ile Thr Ser Thr Asp His Val Leu Glu Gln Asp Phe Trp Ile Cys Phe 105 Thr Phe Tyr Ser Val Lys Glu Arg Gln Ile 120

<210> 2393 <211> 114 <212> PRT <213> Homo sapiens

<400> 2393 Gly Leu Lys Thr Arg Ala Pro Ala Thr Pro Thr Phe Gln Arg Glu Val 10 Leu Gly Pro Ala Lys Gln Asp Met Gln Arg Arg Cys Pro Arg Ile Gly 20 25 Leu Met Thr Ser Leu Leu Lys Pro Ile Lys Arg Arg Trp Arg Asp Tyr Lys Arg Trp Lys Ser Gly Gly Phe Thr Gly Glu Ser Cys His His Ala 55 60 Asp Thr Leu Gly Asp Arg Gly Gly Leu Gln Gly Asp His Ser Glu Leu 75 70 Leu Gln Trp Gln Lys Arg Ile Leu Arg Thr Glu Gly Glu Pro Ser Pro 85 90 Lys Tyr Ile Ser Lys Asn Ile Phe Pro Ile Cys Ser Tyr Ile Thr Gly Phe Leu 114

<210> 2394 <211> 399 <212> PRT <213> Homo sapiens

Ser Ser Thr Leu Pro Pro Phe Leu Leu Asp Ala Ala Pro Cys Glu Pro 70 Glu Ser Leu Glu Ile Asn Lys Tyr Phe Val Val Ile Ile Tyr Ala Leu 90 85 Val Phe Leu Leu Ser Leu Leu Gly Asn Ser Leu Val Met Leu Val Ile 105 100 Leu Tyr Ser Arg Val Gly Arg Ser Val Thr Asp Val Tyr Leu Leu Asn 125 120 Leu Ala Leu Ala Asp Leu Leu Phe Ala Leu Thr Leu Pro Ile Trp Ala 135 140 Ala Ser Lys Val Asn Gly Trp Ile Phe Gly Thr Phe Leu Cys Lys Val 150 155 Val Ser Leu Leu Lys Glu Val Asn Phe Tyr Ser Gly Ile Leu Leu 170 165 Ala Cys Ile Ser Val Asp Arg Tyr Leu Ala Ile Val His Ala Thr Arg 190 180 185 Thr Leu Thr Gln Lys Arg Tyr Leu Val Lys Phe Ile Cys Leu Ser Ile 205 200 Trp Gly Leu Ser Leu Leu Leu Ala Leu Pro Val Leu Leu Phe Arg Arg 220 . 215 Thr Val Tyr Ser Ser Asn Val Ser Pro Ala Cys Tyr Glu Asp Met Gly 230 235 Asn Asn Thr Ala Asn Trp Arg Met Leu Leu Arg Ile Leu Pro Gln Ser 250 255 245 Phe Gly Phe Ile Val Pro Leu Leu Ile Met Leu Phe Cys Tyr Gly Phe 265 270 260 Thr Leu Arg Thr Leu Phe Lys Ala His Met Gly Gln Lys His Arg Ala 275 280 Met Arg Val Ile Phe Ala Val Val Leu Ile Phe Leu Leu Cys Trp Leu 295 300 Pro Tyr Asn Leu Val Leu Leu Ala Asp Thr Leu Met Arg Thr Gln Val 310 315 Ile Gln Glu Thr Cys Glu Arg Arg Asn His Ile Asp Arg Ala Leu Asp 325 330 335 Ala Thr Glu Ile Leu Gly Ile Leu His Ser Cys Leu Asn Pro Leu Ile 350 345 340 Tyr Ala Phe Ile Gly Gln Lys Phe Arg His Gly Leu Leu Lys Ile Leu 360 365 355 Ala Ile His Gly Leu Ile Ser Lys Asp Ser Leu Pro Lys Asp Ser Arg 380 375 Pro Ser Phe Val Gly Ser Ser Ser Gly His Thr Ser Thr Thr Leu 395 390

<210> 2395 <211> 977 <212> PRT <213> Homo sapiens

Pro	Pro	Arg	Phe	Pro	Ile	Tyr	His	Leu 105	Leu	Leu	Ser	Gly	Asn 110	Leu	Leu
Asn	Arg	Leu 115	100 Tyr	Pro	Asn	Glu	Phe 120		Asn	Tyr	Thr	Gly 125		Ser	Ile
Leu	His 130		Gly	Ser	Asn	Val 135		Gln	Asp	Ile	Glu 140		Gly	Ala	Phe
His 145		Leu	Arg	Gly	Leu 150		Arg	Leu	His	Leu 155	Asn	Asn	Asn	Lys	Leu 160
			Arg	165	_				170			,		175	
Leu	Gln	Val	Asp 180	Tyr	Asn	Tyr	Ile	Ser 185	Val	Ile	Glu	Pro	Asn 190	Ala	Phe
Gly	Lys	Leu 195	His	Leu	Leu	Gln	Val 200	Leu	Ile	Leu	Asn	Asp 205	Asn	Leu	Leu
Ser	Ser 210	Leu	Pro	Asn	Asn	Leu 215	Phe	Arg	Phe	Val	Pro 220	Leu	Thr	His	Leu
225		_	Gly		230		_			235	_		_		240
			Asp	245					250					255	
	•		Cys 260					265	-	_	_		270		
	-	275	Ala			_	280			_		285			_
	290		Arg			295					300				
305			Ile		310					315					320
			Tyr	325					330					335	
			Ser 340					345					350		
		355	Pro				360					365			
ser	ьув 370	Asp	Leu	GIY	TYE	375	ASII	Tyr	GLY	PIO	380	тте	Ala	TYE	GIII
385	-		Pro		390			_		395		_		_	400
			Ser	405		_			410			ı		415	
			11e 420					425	_		_		430	_	_
	-	435	Thr			-	440				_	445		-	
	450		Thr			455					460	,			
<b>465</b>	Met	ITE	Gln	Asp	Arg 470	ATA	Pne	GIY	Asp	15eu	Thr	ASI	Leu	Arg	Arg 480
	-		Asn	485					490					495	
_	-		Gln 500				-	505				_	510		
		515	Gln		_		520	_				525		_	
	530		Asn			535					540				
545	•		Thr		550	_				555					560
Ser	Leu	Pro	Val	Ser 565	Gly	Val	Leu	Asp	Gln 570	Leu	Lys	Ser	Leu	Ile 575	Gln
Ile	Asp	Leu	His 580	Asp	Asn	Pro	Trp	Asp 585	Cys	Thr	Cys	Asp	Ile 590	Val	Gly
Met	Lys	Leu 595	Trp	Val	Glu	Gln	Leu 600	Lys	Val	Gly	Val	Leu 605	Val	Asp	Glu

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Val Ile Cys Lys Ala Pro Lys Lys Phe Ala Glu Thr Asp Met Arg Ser
                  615
                                      620
Ile Lys Ser Glu Leu Leu Cys Pro Asp Tyr Ser Asp Val Val Ser
                                 635
         630
Thr Pro Thr Pro Ser Ser Ile Gln Val Pro Ala Arg Thr Ser Ala Val
             645
                             650
Thr Pro Ala Val Arg Leu Asn Ser Thr Gly Ala Pro Ala Ser Leu Gly
                          665 670
Ala Gly Gly Gly Ala Ser Ser Val Pro Leu Ser Val Leu Ile Leu Ser
                       680
                                 685
      675
Leu Leu Leu Val Phe Ile Met Ser Val Phe Val Ala Ala Gly Leu Phe
         695
                                     700
Val Leu Val Met Lys Arg Arg Lys Lys Asn Gln Ser Asp His Thr Ser
705 710 715 720
Thr Asn Asn Ser Asp Val Ser Ser Phe Asn Met Gln Tyr Ser Val Tyr
725 730 735
Gly Gly Gly Gly Thr Gly Gly His Pro His Ala His Val His His
                                            750
                           745
         740
Arg Gly Pro Ala Leu Pro Lys Val Lys Thr Pro Ala Gly His Val Tyr
                                         765
      755
              760
Glu Tyr Ile Pro His Pro Leu Gly His Met Cys Lys Asn Pro Ile Tyr
                                   780
                  775
Arg Ser Arg Glu Gly Asn Ser Val Glu Asp Tyr Lys Asp Leu His Glu
785 790 795 800
                                  795
                790
Leu Lys Val Thr Tyr Ser Ser Asn His His Leu Gln Gln Gln Gln
                      810 815
            805
Pro Pro Pro Pro Pro Gln Gln Pro Gln Gln Pro Pro Pro Gln Leu
                                 830
        820
                           825
Gln Leu Gln Pro Gly Glu Glu Glu Arg Arg Glu Ser His His Leu Arg
                                         845
                       840
      835
Ser Pro Ala Tyr Ser Val Ser Thr Ile Glu Pro Arg Glu Asp Leu Leu
                                    860
                   855
Ser Pro Val Gln Asp Ala Asp Arg Phe Tyr Arg Gly Ile Leu Glu Pro
                870 875
Asp Lys His Cys Ser Thr Thr Pro Ala Gly Asn Ser Leu Pro Glu Tyr
885 890 895
Pro Lys Phe Pro Cys Ser Pro Ala Ala Tyr Thr Phe Ser Pro Asn Tyr
                                             910
                           905
       900
Asp Leu Arg Arg Pro His Gln Tyr Leu His Pro Gly Ala Gly Asp Ser
                                          925
                        920
      915
Arg Leu Arg Glu Pro Val Leu Tyr Ser Pro Pro Ser Ala Val Phe Val
                  935
                             940
Glu Pro Asn Arg Asn Glu Tyr Leu Glu Leu Lys Ala Lys Leu Asn Val
                        955
              950
Glu Pro Asp Tyr Leu Glu Val Leu Glu Lys Gln Thr Thr Phe Ser Gln
              965
                               970
Phe
977
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<210> 2396 <211> 141 <212> PRT <213> Homo sapiens

<210> 2397 <211> 84 <212> PRT <213> Homo sapiens

<210> 2398 <211> 1684 <212> PRT <213> Homo sapiens

<213> HOMO Sapiens

<400> 2398

Pro Glu Val Thr Lys Pro Ser Leu Ser Gln Pro Thr Ala Ala Ser Pro 10 Ile Gly Ser Ser Pro Ser Pro Pro Val Asn Gly Gly Asn Asn Ala Lys 20 25 Arg Val Ala Val Pro Asn Gly Gln Pro Pro Ser Ala Ala Arg Tyr Met 40 Pro Arg Glu Val Pro Pro Arg Phe Arg Cys Gln Gln Asp His Lys Val 55 Leu Leu Lys Arg Gly Gln Pro Pro Pro Pro Ser Cys Met Leu Leu Gly 70 75 80 65 Gly Gly Ala Gly Pro Pro Pro Cys Thr Ala Pro Gly Ala Asn Pro Asn 90 Asn Ala Gln Val Thr Gly Ala Leu Leu Gln Ser Glu Ser Gly Thr Ala 100 105 110 Pro Asp Ser Thr Leu Gly Gly Ala Ala Ala Ser Asn Tyr AFa Asn Ser 120 125 115 Thr Trp Gly Ser Gly Ala Ser Ser Asn Asn Gly Thr Ser Pro Asn Pro 140 135 Ile His Ile Trp Asp Lys Val Ile Val Asp Gly Ser Asp Met Glu Glu 155

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Trp Pro Cys Ile Ala Ser Lys Asp Thr Glu Ser Ser Ser Glu Asn Thr
             165
                               170
Thr Asp Asn Asn Ser Ala Ser Asn Pro Gly Ser Glu Lys Ser Thr Leu
                            185
          180
Pro Gly Ser Thr Thr Ser Asn Lys Gly Lys Gly Ser Gln Cys Gln Ser
                                          205
                       200
Ala Ser Ser Gly Asn Glu Cys Asn Leu Gly Val Trp Lys Ser Asp Pro
                                       220
                    215
Lys Ala Lys Ser Val Gln Ser Ser Asn Ser Thr Thr Glu Asn Asn Asn
               230
                        235
Gly Leu Gly Asn Trp Arg Asn Val Ser Gly Gln Asp Arg Ile Gly Pro
                     250 255
            245
Gly Ser Gly Phe Ser Asn Phe Asn Pro Asn Ser Asn Pro Ser Ala Trp
                   265
                                             270
     260
Pro Ala Leu Val Gln Glu Gly Thr Ser Arg Lys Gly Ala Leu Glu Thr
                        280
Asp Asn Ser Asn Ser Ser Ala Gln Val Ser Thr Val Gly Gln Thr Ser
                             300
                    295
Arg Glu Gln Gln Ser Lys Met Glu Asn Ala Gly Val Asn Phe Val Val
                                  315
                 310
Ser Gly Arg Glu Gln Ala Gln Ile His Asn Thr Asp Gly Pro Lys Asn
                              330
            325
Gly Asn Thr Asn Ser Leu Asn Leu Ser Ser Pro Asn Pro Met Glu Asn
                          345
                                              350
         340
Lys Gly Met Pro Phe Gly Met Gly Leu Gly Asn Thr Ser Arg Ser Thr
                       360 355
       355
Asp Ala Pro Ser Gln Ser Thr Gly Asp Arg Lys Thr Gly Ser Val Gly
                     375
                                      380
Ser Trp Gly Ala Ala Arg Gly Pro Ser Gly Thr Asp Thr Val Ser Gly
                                   395
                 390
Gln Ser Asn Ser Gly Asn Asn Gly Asn Asn Gly Lys Glu Arg Glu Asp
             405
                               410
Ser Trp Lys Gly Ala Ser Val Gln Lys Ser Thr Gly Ser Lys Asn Asp
         420
                          425
Ser Trp Asp Asn Asn Asn Arg Ser Thr Gly Gly Ser Trp Asn Phe Gly
                        440
Pro Gln Asp Ser Asn Asp Asn Lys Trp Gly Glu Gly Asn Lys Met Thr
                                      460
                     455
Ser Gly Val Ser Gln Gly Glu Trp Lys Gln Pro Thr Gly Ser Asp Glu
                  470
                                 475
Leu Lys Ile Gly Glu Trp Ser Gly Pro Asn Gln Pro Asn Ser Ser Thr
                               490 . 495
            485
Gly Ala Trp Asp Asn Gln Lys Gly His Pro Leu Leu Glu Asn Gln Gly
                            505
          500
Asn Ala Gln Ala Pro Cys Trp Gly Arg Ser Ser Ser Ser Thr Gly Ser
                        520
                                          525
Glu Val Glu Gly Gln Ser Thr Gly Ser Asn His Lys Ala Gly Ser Ser
                                      540
                     535
Asp Ser His Asn Ser Gly Arg Arg Ser Tyr Arg Pro Thr His Pro Asp
                                   555
                 550
Cys Gln Ala Val Leu Gln Thr Leu Leu Ser Arg Thr Asp Leu Asp Pro
                               570
             565
Arg Val Leu Ser Asn Thr Gly Trp Gly Gln Thr Gln Ile Lys Gln Asp
                           585
         580
Thr Val Trp Asp Ile Glu Glu Val Pro Arg Pro Glu Gly Lys Ser Asp
                                          605
                        600
Lys Gly Thr Glu Gly Trp Glu Ser Ala Ala Thr Gln Thr Lys Asn Ser
                     615
                                       620
Gly Gly Trp Gly Asp Ala Pro Ser Gln Ser Asn Gln Met Lys Ser Gly
                                   635
                 630
Trp Gly Glu Leu Ser Ala Ser Thr Glu Trp Lys Asp Pro Lys Asn Thr
                               650
              645
Gly Gly Trp Asn Asp Tyr Lys Asn Asn Asn Ser Ser Asn Trp Gly Gly
           660
                            665
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Gly Arg Pro Asp Glu Lys Thr Pro Ser Ser Trp Asn Glu Asn Pro Ser 680 685 Lys Asp Gln Gly Trp Gly Gly Gly Arg Gln Pro Asn Gln Gly Trp Ser 695 Ser Gly Lys Asn Gly Trp Gly Glu Glu Val Asp Gln Thr Lys Asn Ser 710 715 Asm Trp Glu Ser Ser Ala Ser Lys Pro Val Ser Gly Trp Gly Glu Gly 725 730 Gly Gln Asn Glu Ile Gly Thr Trp Gly Asn Gly Gly Asn Ala Ser Leu 740 745 Ala Ser Lys Gly Gly Trp Glu Asp Cys Lys Arg Ser Pro Ala Trp Asn 760 Glu Thr Gly Arg Gln Pro Asn Ser Trp Asn Lys Gln His Gln Gln 775 780 Gln Pro Pro Gln Gln Pro Pro Pro Pro Gln Pro Glu Ala Ser Gly Ser 790 795 Trp Gly Gly Pro Pro Pro Pro Pro Gly Asn Val Arg Pro Ser Asn 805 810 Ser Ser Trp Ser Ser Gly Pro Gln Pro Ala Thr Pro Lys Asp Glu Glu 820 825 830 Pro Ser Gly Trp Glu Glu Pro Ser Pro Gln Ser Ile Ser Arg Lys Met 840 845 Asp Ile Asp Asp Gly Thr Ser Ala Trp Gly Asp Pro Asn Ser Tyr Asn 855 860 Tyr Lys Asn Val Asn Leu Trp Asp Lys Asn Ser Gln Gly Gly Pro Ala 870 875 Pro Arg Glu Pro Asn Leu Pro Thr Pro Met Thr Ser Lys Ser Ala Ser 890 885 Asp Ser Lys Ser Met Gln Asp Gly Trp Gly Glu Ser Asp Gly Pro Val 900 905 910 Thr Gly Ala Arg His Pro Ser Trp Glu Glu Glu Glu Asp Gly Gly Val 920 925 Trp Asn Thr Thr Gly Ser Gln Gly Ser Ala Ser Ser His Asn Ser Ala 935 940 Ser Trp Gly Gln Gly Gly Lys Lys Gln Met Lys Cys Ser Leu Lys Gly 950 955 Gly Asn Asn Asp Ser Trp Met Asn Pro Leu Ala Lys Gln Phe Ser Asn 970 965 Met Gly Leu Leu Ser Gln Thr Glu Asp Asn Pro Ser Ser Lys Met Asp 980 985 990 Leu Ser Val Gly Ser Leu Ser Asp Lys Lys Phe Asp Val Asp Lys Arg 1000 1005 Ala Met Asn Leu Gly Asp Phe Asn Asp Ile Met Arg Lys Asp Arg Ser 1015 1020 Gly Phe Arg Pro Pro Asn Ser Lys Asp Met Gly Thr Thr Asp Ser Gly 1030 1035 Pro Tyr Phe Glu Lys Gly Gly Ser His Gly Leu Phe Gly Asn Ser Thr 1045 1050 1055 Ala Gln Ser Arg Gly Leu His Thr Pro Val Gln Pro Leu Asn Ser Ser 1060 1065 1070 Pro Ser Leu Arg Ala Gln Val Pro Pro Gln Phe Ile Ser Pro Gln Val 1075 1080 1085 Ser Ala Ser Met Leu Lys Gln Phe Pro Asn Ser Gly Leu Ser Pro Gly 1095 1100 Leu Phe Asn Val Gly Pro Gln Leu Ser Pro Gln Gln Ile Ala Met Leu 1110 1115 Ser Gln Leu Pro Gln Ile Pro Gln Phe Gln Leu Ala Cys Gln Leu Leu 1125 1130 Leu Gln Gln Gln Gln Gln Gln Leu Leu Gln Asn Gln Arg Lys Ile 1140 1145 1150 Ser Gln Ala Val Arg Gln Gln Gln Gln Gln Leu Ala Arg Met Val 1160 1165 Ser Ala Leu Gln Gln Gln Gln Gln Gln Gln Arg Gln Pro Gly Met 1175

Lys His Ser Pro Ser His Pro Val Gly Pro Lys Pro His Leu Asp Asn 1190 1195 Met Val Pro Asn Ala Leu Asn Val Gly Leu Pro Asp Leu Gln Thr Lys 1210 1215 1205 Gly Pro Ile Pro Gly Tyr Gly Ser Gly Phe Ser Ser Gly Gly Met Asp 1220 1225 1230 Tyr Gly Met Val Gly Gly Lys Glu Ala Gly Thr Glu Ser Arg Phe Lys 1235 1240 1245 Gln Trp Thr Ser Met Met Glu Gly Leu Pro Ser Val Ala Thr Gln Glu 1260 1250 1255 Ala Asn Met His Lys Asn Gly Ala Ile Val Ala Pro Gly Lys Thr Arg 1265 1270 1275 1280 Gly Gly Ser Pro Tyr Asn Gln Phe Asp Ile Ile Pro Gly Asp Thr Leu 1285 1290 1295 Gly Gly His Thr Gly Pro Ala Gly Asp Ser Trp Leu Pro Ala Lys Ser 1300 1305 1310 Pro Pro Thr Asn Lys Ile Gly Ser Lys Ser Ser Asn Ala Ser Trp Pro 1320 1325 Pro Glu Phe Gln Pro Gly Val Pro Trp Lys Gly Ile Gln Asn Ile Asp 1340 1330 1335 Pro Glu Ser Asp Pro Tyr Val Thr Pro Gly Ser Val Leu Gly Gly Thr 1350 1355 1345 Ala Thr Ser Pro Ile Val Asp Thr Asp His Gln Leu Leu Arg Asp Asn 1365 1370 1375 Thr Thr Gly Ser Asn Ser Ser Leu Asn Thr Ser Leu Pro Ser Pro Gly 1380 1385 1390 Ala Trp Pro Tyr Ser Ala Ser Asp Asn Ser Phe Thr Asn Val His Ser 1400 1405 Thr Ser Ala Lys Phe Pro Asp Tyr Lys Ser Thr Trp Ser Pro Asp Pro 1420 1410 1415 Ile Gly His Asn Pro Thr His Leu Ser Asn Lys Met Trp Lys Asn His 1430 1435 1440 1425 Ile Ser Ser Arg Asn Thr Thr Pro Leu Pro Arg Pro Pro Pro Gly Leu 1445 1450 1455 Thr Asn Pro Lys Pro Ser Ser Pro Trp Ser Ser Thr Ala Pro Arg Ser 1460 1465 1470 Val Arg Gly Trp Gly Thr Gln Asp Ser Arg Leu Ala Ser Ala Ser Thr 1475 1480 1485 Trp Ser Asp Gly Gly Ser Val Arg Pro Ser Tyr Trp Leu Val Leu His 1500 1495 1490 Asn Leu Thr Pro Gln Ile Asp Gly Ser Thr Leu Arg Thr Ile Cys Met 1505 1510 1515 1520 Gln His Gly Pro Leu Leu Thr Phe His Leu Asn Leu Thr Gln Gly Thr 1525 1530 1535 Ala Leu Ile Arg Tyr Ser Thr Lys Gln Glu Ala Ala Lys Ala Gln Thr 1540 1545 1550 Ala Leu His Met Cys Val Leu Gly Asn Thr Thr Ile Leu Ala Glu Phe 1560 1565 1555 Ala Thr Asp Asp Glu Val Ser Arg Phe Leu Ala Gln Ala Gln Pro Pro 1570 1575 1580 Thr Pro Ala Ala Thr Pro Ser Ala Pro Ala Ala Gly Trp Gln Ser Leu 1590 1595 1600 1585 Glu Thr Gly Gln Asn Gln Ser Asp Pro Val Gly Pro Ala Leu Asn Leu 1605 1610 1615 Phe Gly Gly Ser Thr Gly Leu Gly Gln Trp Ser Ser Ser Ala Gly Gly 1620 1625 1630 Ser Ser Gly Ala Asp Leu Ala Gly Ala Ser Leu Trp Gly Pro Pro Asn 1645 1635 1640 Tyr Ser Ser Ser Leu Trp Gly Val Pro Thr Val Glu Asp Pro His Arg 1650 1655 1660 Met Gly Ser Pro Ala Pro Leu Leu Pro Gly Asp Leu Leu Gly Gly Gly 1670 1675 Ser Asp Ser Ile 1684

<210> 2399 <211> 395 <212> PRT <213> Homo sapiens

<400> 2399 Val Pro Trp Lys Arg Gln Asp Glu Gln Leu Ser Leu Gln Val Glu Thr 10 Leu Tyr Leu Asp Ser Pro Ala Val Ile His Leu Leu Ser Pro Thr Phe 20 25 Leu Pro Pro Ser Ser Leu Pro Pro Phe Leu Gln Ile Val Asp Ser Ser 40 Ser Ser Ala Cys Thr Leu Asp Ser Phe Phe Pro Phe Leu Ala Pro Trp 55 60 Asp Ser Pro Gln Asp Cys Gly Phe Lys Asp His Gln Pro Leu Thr Leu 70 75 Gln Ala Leu Thr Val Glu Leu Ala Arg Trp Thr Leu Met Leu Leu Leu 90 Ser Thr Ala Met Tyr Gly Ala His Ala Pro Leu Leu Ala Leu Cys His 100 105 110 Val Asp Gly Arg Val Pro Phe Arg Pro Ser Ser Ala Val Leu Leu Thr 120 125 115 Glu Leu Thr Lys Leu Leu Cys Ala Phe Ser Leu Leu Val Gly Trp 135 Gln Ala Trp Pro Gln Gly Pro Pro Pro Trp Arg Gln Ala Ala Pro Phe 155 150 Ala Leu Ser Ala Leu Leu Tyr Gly Ala Asn Asn Asn Leu Val Ile Tyr 165 170 Leu Gln Arg Tyr Met Asp Pro Ser Thr Tyr Gln Val Leu Ser Asn Leu 180 185 190 Lys Ile Gly Ser Thr Ala Val Leu Tyr Cys Leu Cys Leu Arg His Arg 200 Leu Ser Val Arg Gln Gly Leu Ala Leu Leu Leu Leu Met Ala Ala Gly 215 220 Ala Cys Tyr Ala Ala Gly Gly Leu Gln Val Pro Gly Asn Thr Leu Pro 230 235 Ser Pro Pro Pro Ala Ala Ala Ala Ser Pro Met Pro Leu His Ile Thr 245 250 Pro Leu Gly Leu Leu Leu Leu Ile Leu Tyr Cys Leu Ile Ser Gly Leu 260 265 Ser Ser Val Tyr Thr Glu Leu Leu Met Lys Arg Gln Arg Leu Pro Leu 280 Ala Leu Gln Asn Leu Phe Leu Tyr Thr Phe Gly Val Leu Leu Asn Leu 295 300 Gly Leu His Ala Gly Gly Gly Ser Gly Pro Gly Leu Leu Glu Gly Phe 310 315 Ser Gly Trp Ala Ala Leu Val Val Leu Ser Gln Ala Leu Asn Gly Leu 325 330 335 Leu Met Ser Ala Val Met Lys His Gly Ser Ser Ile Thr Arg Leu Phe 340 345 Val Val Ser Cys Ser Leu Val Val Asn Ala Val Leu Ser Ala Val Leu 360 365 Leu Arg Leu Gln Leu Thr Ala Ala Phe Phe Leu Ala Thr Leu Leu Ile 375 . 380 Gly Leu Ala Met Arg Leu Tyr Tyr Gly Ser Arg 390

<211> 552 <212> PRT <213> Homo sapiens

<400> 2400 Trp Val Ser Ser Met Gly Phe Glu Glu Leu Leu Glu Gln Val Gly Gly 10 Phe Gly Pro Phe Gln Leu Arg Asn Val Ala Leu Leu Ala Leu Pro Arg 25 Val Leu Leu Pro Leu His Phe Leu Leu Pro Ile Phe Leu Ala Ala Val 40 35 Pro Ala His Arg Cys Ala Leu Pro Gly Ala Pro Ala Asn Phe Ser His 55 Gln Asp Val Trp Leu Glu Ala His Leu Pro Arg Glu Pro Asp Gly Thr 70 75 Leu Ser Ser Cys Leu Arg Phe Ala Tyr Pro Gln Ala Leu Pro Asn Thr 90 Thr Leu Gly Glu Glu Arg Gln Ser Arg Gly Glu Leu Glu Asp Glu Pro 110 105 100 Ala Thr Val Pro Cys Ser Gln Gly Trp Glu Tyr Asp His Ser Glu Phe ·125 120 115 Ser Ser Thr Ile Ala Thr Glu Ser Gln Trp Asp Leu Val Cys Glu Gln 140 135 Lys Gly Leu Asn Arg Ala Ala Ser Thr Phe Phe Phe Ala Gly Val Leu 155 150 Val Gly Ala Val Ala Phe Gly Tyr Leu Ser Asp Arg Phe Gly Arg Arg 170 175 165 Arg Leu Leu Val Ala Tyr Val Ser Thr Leu Val Leu Gly Leu Ala 180 185 Ser Ala Ala Ser Val Ser Tyr Val Met Phe Ala Ile Thr Arg Thr Leu 200 195 Thr Gly Ser Ala Leu Ala Gly Phe Thr Ile Ile Val Met Pro Leu Glu 215 220 Leu Glu Trp Leu Asp Val Glu His Arg Thr Val Ala Gly Val Leu Ser 230 235 Ser Thr Phe Trp Thr Gly Gly Val Met Leu Leu Ala Leu Val Gly Tyr 250 255 245 Leu Ile Arg Asp Trp Arg Trp Leu Leu Leu Ala Val Thr Leu Pro Cys 265 260 Ala Pro Gly Ile Leu Ser Leu Trp Trp Val Pro Glu Ser Ala Arg Trp 280 285 275 Leu Leu Thr Gln Gly His Val Lys Glu Ala His Arg Tyr Leu Leu His 290 295 300 295 Cys Ala Arg Leu Asn Gly Arg Pro Val Cys Glu Asp Ser Phe Ser Gln 305 310 315 320 315 310 Glu Ala Val Ser Lys Val Ala Ala Gly Glu Arg Val Val Arg Arg Pro 330 325 Ser Tyr Leu Asp Leu Phe Arg Thr Pro Arg Leu Arg His Ile Ser Leu 345 340 Cys Cys Val Val Val Trp Phe Gly Val Asn Phe Ser Tyr Tyr Gly Leu 360 365 Ser Leu Asp Val Ser Gly Leu Gly Leu Asn Val Tyr Gln Thr Gln Leu 370 375 380 Leu Phe Gly Ala Val Glu Leu Pro Ser Lys Leu Leu Val Tyr Leu Ser 390 395 Val Arg Tyr Ala Gly Arg Arg Leu Thr Gln Ala Gly Thr Leu Leu Gly 405 410 Thr Ala Leu Ala Phe Gly Thr Arg Leu Leu Val Ser Ser Asp Met Lys 425 430 420 Ser Trp Ser Thr Val Leu Ala Val Met Gly Lys Ala Phe Ser Glu Ala 445 440 435 Ala Phe Thr Thr Ala Tyr Leu Phe Thr Ser Glu Leu Tyr Pro Thr Val 450 455

Leu Arg Gln Thr Gly Met Gly Leu Thr Ala Leu Val Gly Arg Leu Gly 470 475 Gly Ser Leu Ala Pro Leu Ala Ala Leu Leu Asp Gly Val Trp Leu Ser 485 490 Leu Pro Lys Leu Thr Tyr Gly Gly Ile Ala Leu Leu Ala Ala Gly Thr 500 505 510 Ala Leu Leu Pro Glu Thr Arg Gln Ala Gln Leu Pro Glu Thr Ile 520 525 Gln Asp Val Glu Arg Lys Ser Ala Pro Thr Ser Leu Gln Glu Glu 535 Met Pro Met Lys Gln Val Gln Asn 550 552

<210> 2401 <211> 370 <212> PRT

<213> Homo sapiens

<400> 2401 Glu Ile Arg Thr Pro Val Ala Val Ser Ser Ala Pro Ser Gly Asp Ser 10 Glu Gly Asp Glu Glu Glu Thr Thr Gln Asp Glu Val Ser Ser His Thr Ser Glu Glu Asp Gly Gly Val Val Lys Val Glu Lys Glu Leu Glu Asn 35 40 Thr Glu Gln Pro Val Gly Gly Asn Glu Val Val Glu His Glu Val Thr 50 55 . Gly Asn Leu Asn Ser Asp Pro Leu Leu Glu Leu Cys Gln Cys Pro Leu 75 70 Cys Gln Leu Asp Cys Gly Ser Arg Glu Gln Leu Ile Ala His Val Tyr 90 85 Gln His Thr Ala Ala Val Val Ser Ala Lys Ser Tyr Met Cys Pro Val 100 105 110 Cys Gly Arg Ala Leu Ser Ser Pro Gly Ser Leu Gly Arg His Leu Leu 120 125 115 Ile His Ser Glu Asp Gln Arg Ser Asn Cys Ala Val Cys Gly Ala Arg 135 140 Phe Thr Ser His Ala Thr Phe Asn Ser Glu Lys Leu Pro Glu Val Leu 150 155 Asn Met Glu Ser Leu Pro Thr Val His Asn Glu Gly Pro Ser Ser Ala 170 165 175 Glu Gly Lys Asp Ile Ala Phe Ser Pro Pro Val Tyr Pro Ala Gly Ile 180 185 190 Leu Leu Val Cys Asn Asn Cys Ala Ala Tyr Arg Lys Leu Leu Glu Ala 200 Gln Thr Pro Ser Val Arg Lys Trp Ala Leu Arg Arg Gln Asn Glu Pro 215 220 Leu Glu Val Arg Leu Gln Arg Leu Glu Arg Glu Arg Thr Ala Lys Lys 230 235 Ser Arg Arg Asp Asn Glu Thr Pro Glu Glu Arg Glu Val Arg Arg Met 250 Arg Asp Arg Glu Ala Lys Arg Leu Gln Arg Met Gln Glu Thr Asp Glu 260 265 Gln Arg Ala Arg Arg Leu Gln Arg Asp Arg Glu Ala Met Arg Leu Lys 280 285 Arg Ala Asn Glu Thr Pro Glu Lys Arg Gln Ala Arg Leu Ile Arg Glu 295 300 Arg Glu Ala Lys Arg Leu Lys Arg Arg Leu Glu Lys Met Asp Met Met 310 315 Leu Arg Ala Gln Phe Gly Gln Asp Pro Ser Ala Met Ala Ala Leu Ala 325 330

Ala Glu Met Asn Phe Phe Gln Leu Pro Val Ser Gly Val Glu Leu Asp 340 345 350

Ser Gln Leu Leu Gly Lys Met Ala Phe Glu Glu Gln Asn Ser Ser Ser 355

Leu His 370

<210> 2402 <211> 345 <212> PRT <213> Homo sapiens

<400> 2402 Arg His Gly His Gly Gly Arg Asp Arg Arg Gly Gly Arg Val Ala 10 5 Arg Pro Gly Gly Leu Gly Arg Tyr Pro Gly Arg Gly Ala Ala Ala Ser 25 20 Leu Val Phe Val Pro Thr Arg Arg Arg Ser Gly Pro Ser Gly Thr Ala 45 35 40 Ser Val Ala Ala Met Ala Tyr His Ser Gly Tyr Gly Ala His Gly Ser 60 55 50 Lys His Arg Ala Arg Ala Ala Pro Asp Pro Pro Pro Leu Phe Asp Asp 70 75 Thr Ser Gly Gly Tyr Ser Ser Gln Pro Gly Gly Tyr Pro Ala Thr Gly 85 90 Ala Asp Val Ala Phe Ser Val Asn His Leu Leu Gly Asp Pro Met Ala 100 ` 105 Asn Val Ala Met Ala Tyr Gly Ser Ser Ile Ala Ser His Gly Lys Asp 125 120 Met Val His Lys Glu Leu His Arg Phe Val Ser Val Ser Lys Leu Lys 140 135 130 Tyr Phe Phe Ala Val Asp Thr Ala Tyr Val Ala Lys Lys Leu Gly Leu 145 150 155 160 Leu Val Phe Pro Tyr Thr His Gln Asn Trp Glu Val Gln Tyr Ser Arg 170 175 165 Asp Ala Pro Leu Pro Pro Arg Gln Asp Leu Asn Ala Pro Asp Leu Tyr 190 185 180 Ile Pro Thr Met Ala Phe Ile Thr Tyr Val Leu Leu Ala Gly Met Ala 200 195 Leu Gly Ile Gln Lys Arg Phe Ser Pro Glu Val Leu Gly Leu Cys Ala 220 215 Ser Thr Ala Leu Val Trp Val Val Met Glu Val Leu Ala Leu Leu Leu 230 235 Gly Leu Tyr Leu Ala Thr Val Arg Ser Asp Leu Ser Thr Phe His Leu 250 255 245 Leu Ala Tyr Ser Gly Tyr Lys Tyr Val Gly Met Ile Leu Ser Val Leu 270 265 260 Thr Gly Leu Leu Phe Gly Ser Asp Gly Tyr Tyr Val Ala Leu Ala Trp 275 280 Thr Ser Ser Ala Leu Met Tyr Phe Ile Val Arg Ser Leu Arg Thr Ala 290 295 300 290 295 Ala Leu Gly Pro Asp Ser Met Gly Gly Pro Val Pro Arg Gln Arg Leu 305 310 315 320 Gln Leu Tyr Leu Thr Leu Gly Ala Ala Ala Phe Gln Pro Leu Ile Ile 325 330 Tyr Trp Leu Thr Phe His Leu Val Arg

<210> 2403

<211> 236 <212> PRT <213> Homo sapiens

<400> 2403

Arg Pro Pro Arg Val Trp Tyr Pro Glu Leu Arg Glu Leu Ser Ala Ala 10 Ala Pro Arg Trp Ser His Arg Thr Ala Pro Gly Ile Met Val Phe Tyr 20 25 Phe Thr Ser Ser Ser Val Asn Ser Ser Ala Tyr Thr Ile Tyr Met Gly 35 40 Lys Asp Lys Tyr Glu Asn Glu Asp Leu Ile Lys His Gly Trp Pro Glu 55 60 Asp Ile Trp Phe His Val Asp Lys Leu Ser Ser Ala His Val Tyr Leu Arg Leu His Lys Gly Glu Asn Ile Glu Asp Ile Pro Lys Glu Val Leu 85 90 Met Asp Cys Ala His Leu Val Lys Ala Asn Ser Ile Gln Gly Cys Lys 100 105 110 Met Asn Asn Val Asn Val Val Tyr Thr Pro Trp Ser Asn Leu Lys Lys 120 125 Thr Ala Asp Met Asp Val Gly Gln Ile Gly Phe His Arg Gln Lys Asp 135 140 Val Lys Ile Val Thr Val Glu Lys Lys Val Asn Glu Ile Leu Asn Arg 145 150 155 160 Leu Glu Lys Thr Lys Val Glu Arg Phe Pro Asp Leu Ala Ala Glu Lys 165 170 175 Glu Cys Arg Asp Arg Glu Glu Arg Asn Glu Lys Lys Ala Gln Ile Gln 185 190 180 Glu Met Lys Lys Arg Glu Lys Glu Glu Met Lys Lys Lys Arg Glu Met 195 200 205 Asp Glu Leu Arg Ser Tyr Ser Ser Leu Met Lys Val Glu Asn Met Ser 220 215 Ser Asn Gln Asp Gly Asn Asp Ser Asp Glu Phe Met 230

<210> 2404 <211> 61 <212> PRT <213> Homo sapiens

<400> 2404

<210> 2405 <211> 225 <212> PRT <213> Homo sapiens

<400> 2405

Gln Gln Glu Ser Pro Ala Ala Gly Ala Ala Arg Met Asn Cys Lys Glu 10 Gly Thr Asp Ser Ser Cys Gly Cys Arg Gly Asn Asp Glu Lys Lys Met 20 25 30 Leu Lys Cys Val Val Val Gly Asp Gly Ala Val Gly Lys Thr Cys Leu 40 Leu Met Ser Tyr Ala Asn Asp Ala Phe Pro Glu Glu Tyr Val Pro Thr 55 60 Val Phe Asp His Tyr Ala Val Thr Val Thr Val Gly Gly Lys Gln His 70 · 75 Leu Leu Gly Leu Tyr Asp Thr Ala Gly Gln Glu Asp Tyr Asn Gln Leu 85 90 95 Arg Pro Leu Ser Tyr Pro Asn Thr Asp Val Phe Leu Ile Cys Phe Ser 100 105 110 Val Val Asn Pro Ala Ser Tyr His Asn Val Glu Glu Glu Trp Val Pro 115 120 125 Glu Leu Lys Asp Cys Met Pro His Val Pro Tyr Val Leu Ile Gly Thr 135 140 Gln Ile Asp Leu Arg Asp Asp Pro Lys Thr Leu Ala Arg Leu Leu Tyr 150 155 Met Lys Glu Lys Pro Leu Thr Tyr Glu His Gly Val Lys Leu Ala Lys 165 170 Ala Ile Gly Ala Gln Cys Tyr Leu Glu Cys Ser Ala Leu Thr Gln Lys 180 185 190 Gly Leu Lys Ala Val Phe Asp Glu Ala Ile Leu Thr Ile Phe His Pro 200 205 195 Lys Lys Lys Lys Arg Cys Ser Glu Gly His Ser Cys Cys Ser Ile 215 Ile 225

<210> 2406 <211> 23 <212> PRT

<213> Homo sapiens

<210> 2407 <211> 157 <212> PRT <213> Homo sapiens

 <400> 2407

 Pro Ala Gly Ile Arg His Glu Gln Ala Arg Gly Ala Asp Arg Met Gly I was a specified by a specified

Arg Lys Cys Val Arg Val Gln Leu Ile Lys Asn Gly Lys Lys Ile Thr 95

Ala Phe Val Pro Asn Asp Gly Cys Leu Asn Phe Ile Glu Glu Asn Asp Gly Lys Lys Ile Thr 100

Glu Val Leu Val Ala Gly Phe Gly Arg Lys Gly His Ala Val Gly Asp 125

Ile Pro Gly Val Arg Phe Lys Val Val Lys Val Ala Asn Val Ser Leu 130

Leu Ala Leu Tyr Lys Gly Lys Lys Glu Arg Pro Arg Ser 155

<210> 2408 <211> 236 <212> PRT <213> Homo sapiens

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<210> 2409 <211> 170 <212> PRT <213> Homo sapiens

Gly Pro Arg Met Leu Ser Trp Cys Pro Phe Tyr Lys Val Leu Leu Leu Val Gln Thr Ala Ile Tyr Ser Val Val Gly Tyr Ala Ser Tyr Leu Val 55 60 Trp Lys Asp Leu Gly Gly Leu Gly Trp Pro Leu Ala Leu Pro Leu 65 70 75 Gly Leu Tyr Ala Val Gln Leu Thr Ile Ser Trp Thr Val Leu Val Leu 85 90 Phe Phe Thr Val His Asn Pro Gly Leu Ala Leu Leu His Leu Leu Leu 100 105 Leu Tyr Gly Leu Val Val Ser Thr Ala Leu Ile Trp His Pro Ile Asn 120 115 125 Lys Leu Ala Ala Leu Leu Leu Pro Tyr Leu Ala Trp Leu Thr Val . 135 140 Thr Ser Ala Leu Thr Tyr His Leu Trp Arg Asp Ser Leu Cys Pro Val 150 His Gln Pro Gln Pro Thr Glu Lys Ser Asp 165

<210> 2410 <211> 26 <212> PRT <213> Homo sapiens

<210> 2411 <211> 275 <212> PRT <213> Homo sapiens

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Val Ser Ala Leu Ser Met Leu Thr Cys Ser Ser Val Leu His Ser Gly 185 180 Asn Phe Gly Thr Asp Leu Glu Gln Lys Leu His Trp Asn Pro Glu Asp 195 200 Lys Gly Tyr Val Leu His Met Ile Thr Thr Ala Ala Glu Trp Ser Met 215 220 Ser Phe Ser Phe Phe Gly Phe Phe Leu Thr Tyr Ile Arg Asp Phe Gln 225 230 235 240 Lys Ile Ser Leu Arg Val Glu Ala Asn Leu His Gly Leu Thr Leu Tyr 245 250 Asp Thr Ala Pro Cys Pro Ile Asn Asn Glu Arg Thr Arg Leu Leu Ser 265 Arg Asp Ile 275

<210> 2412 <211> 254 <212> PRT <213> Homo sapiens

<400> 2412 Gly Gly Ala Pro Pro Ala Ser Val Pro Ala Arg Glu Ser Pro Val Ser 10 Gly Ala Gln Gly Ser Ser Arg Thr Arg Gly His Lys Arg Ala Ala Gly 25 20 Ala Arg Ala Pro Gln Leu Cys Ser Ser Trp Gln Arg Arg Ser Ala Pro 35 40 Ala Met Ser Arg Gly Leu Gln Leu Leu Leu Ser Cys Ala Tyr Ser 50 60 Leu Ala Pro Ala Thr Pro Glu Val Lys Val Ala Cys Ser Glu Asp Val Asp Leu Pro Cys Thr Ala Pro Trp Asp Pro Gln Val Pro Tyr Thr Val 85 90 Ser Trp Val Lys Leu Leu Glu Gly Gly Glu Glu Arg Met Glu Thr Pro 100 105 110 Gln Glu Asp His Leu Arg Gly Gln His Tyr His Gln Lys Gly Gln Asn 115 120 125 Gly Ser Phe Asp Ala Pro Asn Glu Arg Pro Tyr Ser Leu Lys Ile Arg 135 140 Asn Thr Thr Ser Cys Asn Ser Gly Thr Tyr Arg Cys Thr Leu Gln Asp 150 155 160 Pro Asp Gly Gln Arg Asn Leu Ser Gly Lys Val Ile Leu Arg Val Thr 165 170 175 165 170 Gly Cys Pro Ala Gln Arg Lys Glu Glu Thr Phe Lys Lys Tyr Arg Ala 185 180 190 Glu Ile Val Leu Leu Ala Leu Val Ile Phe Tyr Leu Thr Leu Ile 200 205 Ile Phe Thr Cys Lys Phe Ala Arg Leu Gln Ser Ile Phe Pro Asp Phe 210 215 220 Ser Lys Ala Gly Met Glu Arg Ala Phe Leu Pro Val Thr Ser Pro Asn 230 235 Lys His Leu Gly Leu Val Thr Pro His Lys Thr Glu Leu Val 250 245

<210> 2413

<211> 159

<212> PRT

<213> Homo sapiens

<400> 2413 Cys Glu Thr Ser Thr Ser Ser Ala Gly His Ala Pro Cys Arg His Ala 5 10 Ala Gln Gly Pro Pro Ala Glu Pro Thr Gly Leu Arg Leu Cys Ser Glu 20 25 His Gln Arg Leu His Ala Trp Pro Pro Gly Pro Arg Arg Pro Ser Leu 35 40 Trp Pro Pro Lys Asn Gly Lys Trp His Ser Gly Lys Arg Thr Ala Gly 55 Gly Arg Pro Gln Arg Arg Pro Ser Arg Arg Gln Ser Gln Arg Pro Ser 65 70 Ala Trp Ser Gly Ser Pro Arg Met His Ser Pro Gly Gln Lys Cys Ser 85 Leu Met Cys Pro His Arg Ser Gln Asp Ser Leu Ser Thr Ala Ile Phe 100 105 Gln Arg Ser Pro Gly Ala Asn Thr Gly Arg Ala Leu His Cys Val Leu 115 . 120 125 Ser Lys Glu Met Lys Ser Val Gln Arg Ser Leu Gly Leu Ser Arg Ile 135 His Leu Gln Ser Lys Arg Lys Ile Ile His Phe Val Leu Thr Arg **155 159** .

<210> 2414 <211> 370 <212> PRT <213> Homo sapiens

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<400> 2414 Leu Lys Asp Thr Leu Lys Ser Gln Met Thr Gln Glu Ala Ser Asp Glu 10 Ala Glu Asp Met Lys Glu Ala Met Asn Arg Met Ile Asp Glu Leu Asn 20 25 3025 Lys Gln Val Ser Glu Leu Ser Gln Leu Tyr Lys Glu Ala Gln Ala Glu 40 Leu Glu Asp Tyr Arg Lys Arg Lys Ser Leu Glu Asp Val Thr Ala Glu 55 60 Tyr Ile His Lys Ala Glu His Glu Lys Leu Met Gln Leu Thr Asn Val 70 75 Ser Arg Ala Lys Ala Glu Asp Ala Leu Ser Glu Met Lys Ser Gln Tyr 85 90 Ser Lys Val Leu Asn Glu Leu Thr Gln Leu Lys Gln Leu Val Asp Ala 105 110 Gln Lys Glu Asn Ser Val Ser Ile Thr Glu His Leu Gln Val Ile Thr 120 125 Thr Leu Arg Thr Ala Ala Lys Glu Met Glu Glu Lys Ile Ser Asn Leu 130 135 140 Lys Glu His Leu Ala Ser Lys Glu Val Glu Val Ala Lys Leu Glu Lys 150 155 Gln Leu Leu Glu Glu Lys Ala Ala Met Thr Asp Ala Met Val Pro Arg 165 170 175 Ser Ser Tyr Glu Lys Leu Gln Ser Ser Leu Glu Ser Glu Val Ser Val 180 185 Leu Ala Ser Lys Leu Lys Glu Ser Val Lys Glu Lys Glu Lys Val His 195 200 Ser Glu Val Val Gln Ile Arg Ser Glu Val Ser Gln Val Lys Arg Glu 220 215 Lys Glu Asn Ile Gln Thr Leu Leu Lys Ser Lys Glu Gln Glu Val Asn 225 230 235 Glu Leu Leu Gln Lys Phe Gln Gln Ala Gln Glu Glu Leu Ala Glu Met 245 250

Lys Arg Tyr Ser Glu Ser Ser Lys Leu Glu Glu Asp Lys Asp Lys 265 270 Lys Ile Asn Glu Met Ser Lys Glu Val Thr Lys Leu Lys Glu Ala Leu 280 · Asn Ser Leu Ser Gln Leu Ser Tyr Ser Thr Ser Ser Ser Lys Arg Gln 300 295 Ser Gln Gln Leu Glu Ala Leu Gln Gln Gln Val Lys Gln Leu Gln Asn 310 315 Gln Leu Ala Glu Cys Lys Lys Gln His Gln Glu Val Ile Ser Val Tyr 325 330 Arg Met His Leu Leu Tyr Ala Val Gln Gly Gln Met Asp Glu Asp Val 345 350 340 Gln Lys Val Leu Lys Gln Ile Leu Thr Met Cys Lys Asn Gln Ser Gln 360 Lys Lys 370

<210> 2415 <211> 219 <212> PRT <213> Homo sapiens

<400> 2415 Ala Ala Ala Thr Ala Ala Ser Leu Ser Pro Arg Gly Cys Arg Leu Arg 10 Thr Pro Ser Ser Asp Val Gly Pro Ser Arg Ala Pro Pro Pro Ser Ala 20 25 Ala Pro Leu Pro Thr Gly Arg Ala Gln Met Ser Pro Ser Gly Arg Leu 40 Cys Leu Leu Thr Ile Val Gly Leu Ile Leu Pro Thr Arg Gly Gln Thr 55 Leu Lys Asp Thr Thr Ser Ser Ser Ala Asp Ala Thr Ile Met Asp 70 75 Ile Gln Val Pro Thr Arg Ala Pro Asp Ala Val Tyr Thr Glu Leu Gln 90 85 Pro Thr Ser Pro Thr Pro Thr Trp Pro Ala Asp Glu Thr Pro Gln Pro 105 Gln Thr Gln Thr Gln Gln Leu Glu Gly Thr Asp Gly Pro Leu Val Thr 115 120 125 Asp Pro Glu Thr His Lys Ser Thr Lys Ala Ala His Pro Thr Asp Asp 130 135 140 Thr Thr Thr Leu Ser Glu Arg Pro Ser Pro Ser Thr Asp Val Gln Thr 150 155 Asp Pro Gln Thr Leu Lys Pro Ser Gly Phe His Glu Asp Asp Pro Phe 165 170 Phe Tyr Asp Glu His Thr Leu Arg Lys Arg Gly Leu Leu Val Ala Ala 180 185 190 Val Leu Phe Ile Thr Gly Ile Ile Ile Leu Thr Ser Gly Lys Cys Arg 195 200 205 Gln Leu Ser Arg Leu Cys Arg Asn His Cys Arg 215

<210> 2416 <211> 534

72117 334

<212> PRT

<213> Homo sapiens

<400> 2416

Phe Val Gly Glu Glu Gly Gly Cys Glu Ala Gly Ala Gly Arg Gly Ala Gln Thr Tyr Pro Gly Glu Ala Gly Glu Arg Trp Phe Gly Arg Arg Arg Arg Arg Gly Arg Val Val Ser Arg Lys Lys Met Ser Leu Lys Ser Glu Arg Arg Gly Ile His Val Asp Gln Ser Asp Leu Leu Cys Lys Lys Gly Cys Gly Tyr Tyr Gly Asn Pro Ala Trp Gln Gly Phe Cys Ser Lys Cys Trp Arg Glu Glu Tyr His Lys Ala Arg Gln Lys Gln Ile Gln Glu Asp Trp Glu Leu Ala Glu Arg Leu Gln Arg Glu Glu Glu Glu Ala Phe Ala Ser Ser Gln Ser Ser Gln Gly Ala Gln Ser Leu Thr Phe Ser Lys Phe Glu Glu Lys Lys Thr Asn Glu Lys Thr Arg Lys Val Thr Thr Val Lys Lys Phe Phe Ser Ala Ser Ser Arg Val Gly Ser Lys Lys Glu Ile Gln Glu Ala Lys Ala Pro Ser Pro Ser Ile Asn Arg Gln Thr Ser Ile Glu Thr Asp Arg Val Ser Lys Glu Phe Ile Glu Phe Leu Lys Thr Phe His Lys Thr Gly Gln Glu Ile Tyr Lys Gln Thr Lys Leu Phe Leu Glu Gly Met His Tyr Lys Arg Asp Leu Ser Ile Glu Glu Gln Ser Glu Cys Ala Gln Asp Phe Tyr His Asn Val Ala Glu Arg Met Gln Thr Arg Gly 230 235 Lys Val Pro Pro Glu Arg Val Glu Lys Ile Met Asp Gln Ile Glu Lys Tyr Ile Met Thr Arg Leu Tyr Lys Tyr Val Phe Cys Pro Glu Thr Thr Asp Asp Glu Lys Lys Asp Leu Ala Ile Gln Lys Arg Ile Arg Ala Leu Arg Trp Val Thr Pro Gln Met Leu Cys Val Pro Val Asn Glu Asp Ile 295 300 Pro Glu Val Ser Asp Met Val Val Lys Ala Ile Thr Asp Ile Ile Glu Met Asp Ser Lys Arg Val Pro Arg Asp Lys Leu Ala Cys Ile Thr Lys Cys Ser Lys His Ile Phe Asn Ala Ile Lys Ile Thr Lys Asn Glu Pro Ala Ser Ala Asp Asp Phe Leu Pro Thr Leu Ile Tyr Ile Val Leu Lys Gly Asn Pro Pro Arg Leu Gln Ser Asn Ile Gln Tyr Ile Thr Arg Phe Cys Asn Pro Ser Arg Leu Met Thr Gly Glu Asp Gly Tyr Tyr Phe Thr Asn Leu Cys Cys Ala Val Ala Phe Ile Glu Lys Leu Asp Ala Gln Ser Leu Asn Leu Ser Gln Glu Asp Phe Asp Arg Tyr Met Ser Gly Gln Thr Ser Pro Arg Lys Gln Glu Ala Glu Ser Trp Ser Pro Asp Ala Cys Leu Gly Val Lys Gln Met Tyr Lys Asn Leu Asp Leu Leu Ser Gln Leu Asn Glu Arg Gln Glu Arg Ile Met Asn Glu Ala Lys Lys Leu Glu Lys Asp Leu Ile Asp Trp Thr Asp Gly Ile Ala Arg Glu Val Gln Asp Ile Val Glu Lys Tyr Pro Leu Glu Ile Lys Pro Pro Asn Gln Pro Leu Ala Ala 

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Ile Asp Ser Glu Asn Val Glu Asn Asp Lys Leu Pro Pro Pro Leu Gln
                          520
Pro Gln Val Tyr Ala Gly
   530
    <210> 2417
    <211> 47
    <212> PRT
    <213> Homo sapiens
    <400> 2417
Ser Asn Met Arg Glu Val Gly Cys Gly Trp Leu Val Pro Val Ile Pro
                                   10
Ala Phe Trp Glu Ala Glu Val Gly Gly Ser Leu Glu Ala Arg Ser Leu
                               25
          20
                                          . 30
Arg Gln Ala Trp Ala Thr Lys Gln Asp Pro Ile Ser Lys Lys
                            40
                                               45 47
    <210> 2418
    <211> 18
     <212> PRT
    <213> Homo sapiens
    <400> 2418
Pro Cys Arg Pro Gly Met Glu Cys Asn Ser Met Ile Ser Val His Cys
                                                       15
. 1
                                   10
Asn Leu
    18
    <210> 2419
    <211> 18
     <212> PRT
    <213> Homo sapiens
    <400> 2419
Pro Cys Arg Pro Gly Met Glu Cys Asn Ser Met Ile Ser Val His Cys
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                                   10
Asn Leu
    18
    <210> 2420
    <211> 461
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    <213> Homo sapiens
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     <222> (1)...(461)
    <223> Xaa = any amino acid or nothing
     <400> 2420
Pro Tyr Pro Gln Gly Gly Tyr Pro Gln Gly Pro Tyr Pro Gln Glu Gly
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10

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Tyr Pro Gln Gly Pro Tyr Pro Gln Gly Gly Tyr Pro Gln Gly Pro Tyr
Pro Gln Ser Pro Phe Pro Pro Asn Pro Tyr Gly Gln Pro Gln Val Phe
        35
                  40
Pro Gly Gln Asp Pro Asp Ser Pro Gln His Gly Asn Tyr Gln Glu Glu
              55
Gly Pro Pro Ser Tyr Tyr Asp Asn Gln Asp Phe Pro Ala Thr Asn Trp
                  70
Asp Asp Lys Ser Ile Arg Gln Ala Phe Ile Arg Lys Val Phe Leu Val
              85
                                90
Leu Thr Leu Gln Leu Ser Val Thr Leu Ser Thr Val Ser Val Phe Thr
       100 105
Phe Val Ala Glu Val Lys Gly Phe Val Arg Glu Asn Val Trp Thr Tyr
      115
                        120
                                         125
Tyr Val Ser Tyr Ala Val Phe Phe Ile Ser Leu Ile Val Leu Ser Cys
                             140
                    135
Cys Gly Asp Phe Arg Arg Lys His Pro Trp Asn Leu Val Ala Leu Ser
                                   155
        150
Val Leu Thr Ala Ser Leu Ser Tyr Met Val Gly Met Ile Ala Ser Phe
             165
                               170
Tyr Asn Thr Glu Ala Val Ile Met Ala Val Gly Ile Thr Thr Ala Val
          180
                            185
                                           190
Cys Phe Thr Val Val Ile Phe Ser Met Gln Thr Arg Tyr Asp Phe Thr
     195
                      200
                                           205
Ser Cys Met Gly Val Leu Leu Val Ser Met Val Val Leu Phe Ile Phe
            215
                                      220
Ala Ile Leu Cys Ile Phe Ile Arg Asn Arg Ile Leu Glu Ile Val Tyr
              230
                                   235
Ala Ser Leu Gly Ala Leu Leu Phe Thr Cys Phe Leu Ala Val Asp Thr
                             250 255
Gln Leu Leu Leu Gly Asn Lys Gln Leu Ser Leu Ser Pro Glu Glu Tyr
         260.
                           265
                                   270
Val Phe Ala Ala Leu Asn Leu Tyr Thr Asp Ile Ile Asn Ile Phe Leu
               280
Tyr Ile Leu Thr Ile Ile Gly Arg Ala Lys Glu Kaa Pro Ser Ser Ser
                   295
                               300
Ser Leu Cys Pro Leu Arg Trp His Gly Trp Pro Gly Pro Cys Pro Trp 305 310 315 320
His Gly Ser Ala Ser Cys Thr Ser Pro Leu Ser Cys Pro Gln Ala Gln
              325
                              330
Pro Arg Glu Lys Asp Ala Ser Leu Gln Pro Ser Cys Met Tyr Thr Ala
         340
                           345
Asp Thr Ser Ile Trp Thr Arg Cys Gly His Ser Met Ala Pro Leu Val
                         360
                                          365
Leu Pro Pro Pro Pro Arg Gly Thr Lys Ala Thr Phe Pro Cys His Leu
                   375
                              380
Leu Ser Thr His Cys Cys Met Ser Pro Val Cys Gln Pro Thr Pro Gly
                390 395
Thr Gly Gly Ser Thr Arg Ser Arg Gly Glu Gly Leu Ser Gln Glu Val
             405
                               410
Arg Val His Val Phe Pro Pro Val Pro Ala Pro Gln Pro Gly Val Glu
         420
                           425 430
His Pro Ser Pro Pro Pro His Pro Pro Gly Val Leu Pro Ser Gly Asp
                        440
Met Arg Ser Gly Gly Leu Ile Pro Val Leu Ser Pro Glu
                    455
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<210> 2421 <211> 119 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(118) <223> Xaa = any amino acid or nothing

<400> 2421 Ala Arg Gly Asn Thr Leu Tyr His Leu Pro Arg Leu Cys Arg Lys Leu 15 10 1 5 Asn Leu Arg Trp Phe Ser Ala Ser Thr Leu Tyr Asp Val Gln His Asp 20 25 Asp Lys Met Gly Ser Asn Thr Phe Phe Lys Arg Asn Asp Cys Arg Tyr 40 Val Met Ile Ser Cys Lys Ala Asp Met Ala Tyr Asp Asn Val Arg His 55 60 Pro Phe Met Ile Xaa Ser Ile Lys Leu Ile Met Glu Glu Thr Tyr Leu 70 75 Asn Ile Ile Lys Ala Val Tyr Asp Arg Pro Thr Ala Ser Ile Ile Leu 85 90 Asn Gly Glu Lys Leu Lys Val Phe Pro Val Arg Ser Gly Thr Xaa Gln 105 100 Gly Cys Ser Val Trp Pro 115 118

<210> 2422 <211> 211 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1) ... (206) <223> Xaa = any amino acid or nothing

<400> 2422 Met Glu Ser Val Leu Ser Lys Tyr Glu Asp Gln Ile Thr Ile Phe Thr Asp Tyr Leu Glu Glu Tyr Pro Asp Thr Asp Glu Leu Val Trp Ile Leu 20 25 Gly Lys Gln His Leu Leu Lys Thr Glu Lys Ser Lys Leu Leu Ser Asp 35 40 45 Ile Ser Ala Arg Leu Trp Phe Thr Tyr Arg Arg Lys Phe Ser Pro Ile 55 60 Gly Gly Thr Gly Pro Ser Ser Asp Ala Gly Trp Gly Cys Met Leu Arg Cys Gly Gln Met Met Leu Ala Gln Ala Leu Ile Cys Arg His Leu Gly 85 90 Arg Asp Trp Ser Trp Glu Lys Gln Lys Glu Gln Pro Lys Glu Tyr Gln 105 Arg Ile Leu Gln Cys Phe Leu Asp Arg Lys Asp Cys Cys Tyr Ser Ile 120 125 His Gln Met Ala Gln Met Gly Val Gly Glu Gly Lys Ser Ile Gly Glu 140 135 Trp Val Leu Gly Pro Asn Thr Val Ala Gln Gly Val Kaa Lys Asn Leu 150 155 Ala Leu Phe Asp Glu Trp Asn Ser Leu Gly Leu Val Tyr Val Ser Met 165 170 Asp Asn Pro Ser Gly Ser Ile Ala Arg Phe Pro Lys Leu Cys Arg 185 190 180 Val Leu Pro Leu Ser Ala Asp Thr Ala Gly Leu Thr Gly Pro 200 205 206

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<210> 2423
     <211> 89
    <212> PRT
     <213> Homo sapiens
     <221> misc_feature
     <222> (1) ... (89)
     <223> Xaa = any amino acid or nothing
     <400> 2423
Asp Phe Ser Val Xaa Gly Asp Val Asp Ile Glu Val Thr Cys Pro Ile
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Cys Leu Gln Leu Leu Thr Glu Pro Leu Ser Leu Asn Cys Gly Leu Arg
           20
                              25
Leu Xaa Gln Val Cys Ile Thr Ala Xaa Ile Lys Glu Ser Val Ile Ile
       35
Ser Gly Gly Xaa Ser Ser Ser Pro Val Cys His Thr Thr Phe Gln Pro
                    55
                                          60
Ala Asn Leu Arg Thr Ser Arg Tyr Leu Pro Thr Xaa Ser Ile Lys Ser
                70
                                       75
Leu Gly Pro Asp Glu Pro Gln Glu Gly
               85
                               89
    <210> 2424
    <211> 124
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
  . <222> (1)...(123)
    <223> Xaa = any amino acid or nothing
    <400> 2424
His Leu Gln Gly Arg Ser Ile Arg Thr Leu Gln Leu Thr Gly Glu Asn
1
               5
                                  10
Glu Lys Asn Cys Glu Val Ser Glu Arg Ile Arg Arg Ser Gly Pro Trp
                              25
                                                 30
Lys Glu Ile Ser Phe Gly Asp Tyr Ile Cys His Thr Phe Gln Gly Asp
        35
                           40
Cys Trp Ala Asp Arg Ser Pro Leu His Glu Ala Ala Ala His Gly Arg
                       55
                                          60
Leu Leu Ala Leu Lys Thr Leu Ile Ala Gln Gly Val Asn Val Asn Leu
                   70
                                      75
Trp Thr Leu Asp Arg Val Ser Ser Leu His Glu Ala Cys Leu Xaa Gly
               85
                               90
Pro Val Ala Cys Ala Lys Pro Tyr Trp Lys Met Val Pro Arg His Gly
          100 105
Gly Thr Val Thr Gly Pro Pro Leu Leu Met Val
       115
    <210> 2425
    <211> 349
    <212> PRT
    <213> Homo sapiens
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<221> misc_feature <222> (1)...(349)

## <223> Xaa = any amino acid or nothing

<400> 2425 Arg Ser Gly Asp Arg Asn Gly Leu Thr His Gln Leu Gly Gly Leu Ser Gln Gly Ser Arg Asn Gln Ser Tyr Arg Ser Arg Ser Arg Ser Arg Ser 25 20 Arg Glu Arg Pro Ser Ala Pro Arg Gly Ile Pro Phe Ala Ser Ala Ser 40 Ser Ser Val Tyr Tyr Gly Ser Tyr Ser Arg Pro Tyr Gly Ser Asp Lys 55 Pro Trp Pro Ser Leu Leu Asp Lys Glu Arg Glu Glu Ser Leu Arg Gln 75 70 Lys Arg Leu Ser Glu Arg Glu Arg Ile Gly Glu Leu Gly Ala Pro Glu 85 90 Val Trp Gly Leu Ser Pro Lys Asn Pro Glu Pro Asp Ser Asp Glu His 100 105 Thr Pro Val Glu Asp Glu Glu Pro Lys Lys Ser Thr Thr Ser Ala Ser 120 125 115 Thr Ser Glu Glu Glu Lys Lys Lys Ser Ser Arg Ser Lys Glu Arg 140 135 Ser Lys Lys Arg Arg Lys Lys Lys Ser Ser Lys Arg Lys His Lys Lys 155 150 Tyr Ser Glu Asp Ser Asp Ser Asp Ser Asp Ser Glu Thr Asp Ser Ser 165 170 175 Asp Glu Asp Asn Lys Arg Arg Ala Lys Lys Ala Lys Lys Glu Lys . 190 180 185 Lys Lys Lys His Arg Ser Lys Lys Tyr Lys Lys Lys Arg Ser Lys Lys 195 200 205 195 Ser Arg Lys Glu Ser Ser Asp Ser Ser Ser Lys Glu Ser Gln Glu Glu 215 220 Phe Leu Glu Asn Pro Trp Lys Asp Arg Thr Lys Ala Glu Glu Pro Ser 225 230 235 Asp Leu Ile Gly Pro Glu Ala Pro Lys Thr Leu Thr Ser Gln Asp Asp 255 245 250 Lys Pro Leu Asn Tyr Gly His Ala Leu Leu Pro Gly Glu Gly Ala Ala 260 265 270 Met Ala Glu Tyr Val Lys Ala Gly Lys Arg Ile Pro Arg Arg Gly Glu 280 285 275 Ile Gly Leu Thr Arg Xaa Arg Asn Cys His His Leu Asn Ala Gln Val 300 295 Met Xaa Xaa Val Val Ser Arg His Arg Arg Met Glu Ala Val Arg Thr 310 315 Ala Lys Arg Glu Pro Glu Ser Thr Val Leu Met Arg Arg Glu Pro Leu 325 330 His Pro Phe Asn Pro Arg Arg Glu Thr Lys Glu Arg Glu 345

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<210> 2426
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<400> 2426

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Gly Arg Ser Thr Glu Ala Glu Lys Glu Pro Ala Phe Asp Glu Arg Thr
1 10 15
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<211> 216

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (214)

<223> Xaa = any amino acid or nothing

Gly Lys Gly Arg Arg Leu Pro Arg Ala Gly Glu Phe His Gly Xaa Glu 20 25 Xaa Ala Pro Gly Pro Gly Pro Arg Ser Phe Gln Val Ser Arg Lys Met Pro Glu Glu Pro Pro Gly Ala Arg Lys His Pro Phe Ser Gly Lys Ser 55 60 Phe Tyr Leu Asp Leu Pro Ala Gly Lys Asn Leu Gln Phe Leu Thr Gly 70 75 Ala Ile Gln Gln Leu Gly Gly Val Ile Glu Gly Phe Leu Ser Lys Glu 85 Val Ser Tyr Ile Val Ser Ser Arg Arg Glu Val Lys Ala Glu Ser Ser 100 105 110 Gly Lys Ser His Arg Gly Cys Pro Ser Pro Ser Pro Ser Glu Val Arg 120 125 Val Glu Thr Ser Ala Met Val Asp Pro Lys Gly Ser His Pro Arg Pro 135 Ser Arg Lys Pro Val Asp Ser Val Pro Leu Ser Arg Gly Lys Glu Leu 150 155 Leu Gln Lys Ala Ile Arg Asn Gln Lys Xaa Xaa Cys Thr Val Gln Gln 165 170 Leu Ser His Cys Arg Leu Tyr Gly Glu Lys Thr Thr Ala Lys Arg Ser 180 185 190 Gln Arg Glu His Val Gln Gln Ser Gln Glu His Gly Lys Trp Pro 195 200 Asp Leu Lys Gly Pro Arg

<210> 2427 <211> 117 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(116) <223> Xaa = any amino acid or nothing

<400> 2427 Ala Lys Ile Gly Ala Tyr Lys Tyr Ile Gln Glu Leu Trp Arg Lys Lys 10 Gln Ser Asp Val Met His Phe Leu Leu Arg Val Arg Cys Trp Gln Tyr 20 25 Pro Ala Leu His Arg Ala Gly Thr Glu Trp Gln Leu Ser Ala Leu His 40 Arg Ala Pro Arg Ser Thr Gln Pro Asp Lys Ala Cys Arg Leu Gly Tyr 60 Lys Ala Lys Gln Gly Tyr Ile Ile Tyr Arg Ile Cys Val Arg Arg Gly 70 75 Gly Trp Lys Cys Pro Val Pro Lys Ala Val Thr Tyr Gly Lys Pro Val 85 90 His His Gly Val Asn Xaa Leu Lys Phe Ala Gln Ser Leu Gln Ser Val 100 105 Ala Glu Glu Gln 115 116

<210> 2428 <211> 82 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(82) <223> Xaa = any amino acid or nothing

<400> 2428 Ala Cys Pro Ala Glu Asn Arg Glu Val Pro Glu Met Ala Ala Gly Gln 10 15 Ala Pro His Ala Gly Pro Gly Ala Gly Pro Gly Gln Pro Ala Pro Ala 25 20 Leu Pro Phe Ala Ala Thr Pro Gly Ser Arg Gly Gln Ala Leu Cys Arg 45 35 40 Gly Gly Arg Arg Gln His Leu His Gly Pro Leu His Arg Pro Xaa 55 - 60 Gln Ala Ala Pro Ala Leu His Ala Gly Cys Gln Leu Ala Pro His Pro 70 65 Pro Thr 82

<210> 2429 <211> 86 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(85)
<223> Xaa = any amino acid or nothing

<400> 2429 Asn Leu Ile Trp Lys Leu Cys Val Thr Glu Arg Arg Leu Val Ile Leu 10 15 Asp Asn Tyr Asp Leu Ala Ser Glu Tyr Glu Ala Asn Lys Tyr Ile Cys 20 25 Asn Arg Ile Ile Gln Phe Lys Pro Gly Gln Asp Lys Tyr Phe Thr Leu 45 35 40 Gly Leu Pro Thr Gly Ser Thr Pro Leu Xaa Cys Tyr Pro Lys Leu Ile 55 60 Clu Tyr Asn Lys Asn Gly His Leu Ser Phe Lys Tyr Val Lys Thr Phe 80 Ser Met Asp Glu Tyr 85

<210> 2430 <211> 470 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (468)

<223> Xaa = any amino acid or nothing

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Leu Pro Tyr Asn Thr Thr Phe Met Pro Asn Leu Leu Asn His Tyr Asp
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Gln Gln Thr Ala Ala Leu Ala Met Glu Pro Phe His Pro Met Val Asn
                   70
                                     75
Leu Asp Cys Ser Arg Asp Phe Arg Pro Phe Leu Cys Ala Leu Tyr Ala
               85
                                 90
Pro Ile Cys Met Glu Tyr Gly Arg Val Thr Leu Pro Cys Arg Arg Leu
          100
                          105
                                              110
Cys Gln Arg Ala Tyr Ser Glu Cys Ser Lys Leu Met Glu Met Phe Gly
      115
                        120
                                          125
Val Pro Trp Pro Glu Asp Met Glu Cys Ser Arg Phe Pro Asp Cys Asp
   130
                     135
                                       140
Glu Pro Tyr Pro Arg Leu Val Asp Leu Asn Leu Ala Gly Glu Pro Thr
               150
                          155
Glu Gly Ala Pro Val Ala Val Gln Arg Asp Tyr Gly Phe Trp Cys Pro
             165
                               170
Arg Glu Leu Lys Ile Asp Pro Asp Leu Gly Tyr Ser Phe Leu His Val
                                      190
                            185
Arg Asp Cys Ser Pro Pro Cys Pro Asn Met Tyr Phe Arg Arg Glu Glu
            200
                               205
Leu Ser Phe Ala Arg Tyr Phe Ile Gly Leu Ile Ser Ile Ile Cys Leu
                     215
                                        220
Ser Ala Thr Leu Phe Thr Phe Val Thr Phe Leu Ile Asp Val Thr Arg
                 230
                                   235
Phe Arg Tyr Pro Glu Arg Pro Ile Lys Cys Tyr Ala Val Trp His Met
             245
                               250
Met Val Ser Leu Ile Phe Phe Ile Gly Phe Leu Leu Glu Asp Arg Val
          260
                            265
Ala Cys Asn Ala Ser Ile Pro Ala Gln Tyr Lys Ala Ser Thr Val Thr
                        280
Gln Gly Ser His Asn Lys Ala Cys Thr Met Leu Phe Met Ile Leu Tyr
                     295
                                      300
Phe Phe Thr Met Ala Gly Ser Val Trp Trp Val Ile Leu Thr Ile Thr
                 310
                                   315
Trp Phe Leu Ala Ala Val Pro Lys Trp Gly Ser Glu Ala Ile Glu Lys
             325
                       330
Lys Ala Leu Leu Phe His Ala Ser Ala Trp Gly Ile Pro Gly Thr Leu
         340
                            345
Thr Ile Ile Leu Leu Ala Met Asn Lys Ile Glu Gly Asp Asn Ile Ser
      355
                         360
                                          365
Gly Val Cys Phe Val Gly Leu Tyr Asp Val Asp Ala Leu Arg Tyr Phe
                    375
                                       3B0
Val Leu Ala Pro Leu Cys Leu Tyr Val Val Val Gly Val Ser Leu Leu
                 390
                                   395
Leu Ala Gly Ile Ile Ser Leu Asn Arg Val Arg Ile Glu Ile Pro Leu
             405
                                410
Xaa Lys Glu Asn Gln Asp Lys Leu Val Lys Phe Met Ile Arg Ile Gly
          420
                            425
                                              430
Val Phe Ser Ile Leu Tyr Leu Val Pro Leu Leu Val Val Ile Gly Cys
                      440
                                          445
Tyr Phe Tyr Glu Gln Ala Tyr Arg Gly Ile Trp Glu Thr Thr Trp Ile
  450
                   455
Gln Glu Arg Cys
465 468
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<210> 2431
<211> 122
<212> PRT
<213> Homo sapiens
<221> misc_feature
. <222> (1) ... (121)
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## <223> Xaa = any amino acid or nothing

<400> 2431 Glu Glu Arg Thr Lys Met Ser Thr Gly Pro Asp Val Lys Ala Thr Val Gly Asp Ile Ser Ser Asp Gly Asn Leu Asn Val Ala Gln Glu Glu Cys 25 Ser Arg Lys Gly Ile Val Asp Glu Phe Phe Pro Leu Leu Ser Asn Xaa 40 Cys Ile Trp Thr Gln Pro Gln Gly Tyr Pro Gln Ser Ser Tyr Gly Thr 55 Leu Ala Asn Phe Val Phe Cys Ser Val Arg His Gly Leu Ala Leu Ile 70 75 Leu Gln Leu Cys Asn Phe Ser Ile Tyr Thr Gln Gln Met Asn Leu Ser 90 Ile Ala Ile Pro Ala Met Val Asn Asn Thr Ala Pro Pro Ser Gln Pro 100 105 Asn Ala Ser Thr Glu Arg Pro Ser Thr 120 121 115

<210> 2432

<211> 246

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(242)

<223> Xaa = any amino acid or nothing

<400> 2432 Pro Phe Gly Thr Pro Ser Ser Thr Met Ala Val Val Lys Asn Lys Cys 10 Leu Met Lys Gly Gly Lys Lys Gly Val Lys Lys Lys Val Val Gly Pro 20 25 Phe Ser Lys Lys Asp Gln Tyr Asp Val Lys Ala Pro Ala Met Phe Asn 45 40 Ile Arg Asn Thr Gly Lys Thr Leu Val Ala Arg Thr Gln Gly Thr Gln 55 60 Ile Ala Ser Asp Gly Leu Lys Gly Leu Leu Phe Glu Val Ser Leu Ala 75 Asp Leu Gln Asn Asp Glu Val Ala Phe Arg Lys Phe Lys Leu Ile Thr 90 85 Glu Asp Val Gln Asp Lys Asn Cys Leu Thr Asn Phe Tyr Gly Met Asp 105 110 100 Leu Thr Cys Asp Lys Ile Cys Ser Met Val Glu Lys Trp Ser Thr Met 120 125 Ile Glu Ala His Val Asp Val Lys Thr Thr Asp Gly Tyr Phe Phe His 135 140 Leu Phe Cys Val Gly Phe Thr Lys Lys His Asn Asn Gln Ile Leu Lys 150 155 Thr Ser Tyr Ala Xaa His Gln Gln Ser Arg Gln Ile Gln Lys Lys Met 170 Met Glu Ile Met Thr Xaa Glu Val Gln Thr Asn Asp Leu Lys Glu Val . 180 185 Val Asn Lys Leu Ile Pro Asp Asn Ile Gly Lys Asp Thr Glu Lys Val 205 195 200 Cys Pro Ile Tyr Pro Leu His Asp Val Phe Ile Arg Lys Val Lys Met 215 220 Leu Glu Asn Pro Gly Phe Glu Arg Met Glu Leu Arg Gly Gly Gly Ser

Ser Ser 242

<210> 2433
<211> 122
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(120)
<223> Xaa = any amino acid or nothing

<400> 2433 Leu Thr Trp Pro Gln Pro His Ile Pro Ser Cys Pro Ala Met Ser Glu 5 10 Glu Thr Leu Gln Ser Lys Leu Ala Ala Ala Lys Lys Leu Pro Trp 20 25 Gly Ala Val Gln Gly Ser Arg Ala Met Ser Asp Leu Leu Leu Leu 40 Leu Asp Leu Thr Leu Leu Leu Leu Met Leu Leu Gly Phe Ala Gly 55 60 Tyr Ser Gly Gln Leu Ala Gly Val Ala Val Ser Ala Gly Ser Pro Pro 65 70 75 Ile Arg Tyr Lys Phe His Val Glu Pro Tyr Gly Glu Thr Gly Trp Leu 85 90 Leu Thr Glu Ser Cys Ser Ile Ser Pro Lys Leu Cys Ser Ile Ala Val 100 105 His Xaa Asp Asn Pro Ala Trp Phe

<210> 2434
<211> 55
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(54)
<223> Xaa = any amino acid or nothing

<210> 2435 <211> 137 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (132)

## <223> Xaa = any amino acid or nothing

<400> 2435 His Met Gly Gln Leu Gly Tyr Phe Ile Gln Cys Trp Trp Glu Cys Lys 10 Arg Leu Ile Ser Phe Trp Lys Thr Ile Xaa Gln Ser Pro Ala Lys Xaa 20 25 Thr Ile Tyr Thr Ser Tyr Asp Thr Ala Ile Pro Ile Ser Gly Ile Tyr 35 40 Pro Lys Arg Met Ser Ser Lys Cys His Gln Glu Thr Cys Ala Arg Met 50 55 Phe Ile Leu Ala Pro Phe Thr Ala Thr Ile Lys Gly Lys Gln Leu Thr 70 75 Cys Pro Leu Val Glu Glu Arg Ile Asp Tyr Met Trp Tyr Ser His Lys 85 90 Tyr Tyr Ile Lys Val Lys Arg Asn Leu Xaa Val Thr Ile Thr His Thr 105 . **11**0 100 Trp Val Asn Leu Asn Ile Leu Met Phe Glu Ile Ile Leu Trp Tyr Ser His Lys Tyr Tyr 130 132

<210> 2436

<211> 53

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(53)

<223> Xaa = any amino acid or nothing

<400> 2436

<210> 2437

<211> 91

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (91)

<223> Xaa = any amino acid or nothing

<400> 2437

Cys Leu Gln Val Tyr Ala Cys Met Cys Val Tyr Tyr Ile Cys Met Phe
50
Val Tyr Ser Val Tyr Gly Cys Gly Leu Cys Thr Cys Val Cys Wal Asp
65
Val Tyr Ile Cys Val Cys Val Gln Glu Phe Leu
85
Val Gy 91

<210> 2438
<211> 145
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1) ... (138)
<223> Xaa = any amino acid or nothing

<400> 2438 Asn Xaa Lys Trp Ile Leu His Val Asn Val Arg Ile Gln Ser Ile Phe 10 Phe Ile Lys Arg Asn Gln Lys Ile Asn Ser His Glu Leu Lys Leu Asp 20 25 Lys Lys Phe Leu Asp Met Met Ser Asn Ala Xaa Ser Thr Lys Lys His 35 40 Asp Lys Leu Asp Leu Ile Lys Phe Lys Thr Leu Cys Ser Ala Lys Tyr 50 55 Thr Val Lys Arg Ile Lys Ile His Pro Thr Asp Leu Glu Lys Met Leu 70 75 Arg Asn His Leu Ser Asp Lys Asp Xaa Tyr Ser Gly Val Tyr Lys Asp 85 90 Leu Ser Lys Leu Asn Arg Arg Lys Thr Glu Ser Xaa Val Lys Lys Trp 105 100 Val Lys Asp Leu Ser Arg Tyr Phe Ile Lys Glu Val Ile Ser Met Glu 115 120 Asn Lys His Lys Lys Ile Phe Ser Thr Ser 130

<210> 2439
<211> 90
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(90)
<223> Kaa = any amino acid or nothing

<400> 2439 Met Ala Leu Thr Pro Glu Ser Pro Ser Ser Phe Pro Gly Leu Ala Ala 10 Thr Gly Ser Ser Val Pro Glu Pro Pro Gly Gly Pro Asm Ala Thr Leu 20 25 Asn Ser Ser Trp Asp Ser Pro Thr Glu Pro Ser Ser Leu Glu Asp Leu 40 Glu Ala Thr Gly Thr Ile Gly Thr Leu Leu Ser Asp Met Gly Val Val 55 60 Gly Val Glu Asp Asn Ala Tyr Thr Leu Glu Val Asn Ser Arg Tyr Met 70 75 Arg Ala Val Gly Ile Met Xaa Ile His Leu 85

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<210> 2440
<211> 118
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(116)
<223> Xaa = any amino acid or nothing
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<400> 2440 Ser Asn Ile Thr Ile Thr Leu Thr Xaa Met Lys Lys Tyr Asp Asn Thr 10 Phe Cys Trp Xaa Gly Cys Gly Gln Ile Gly Thr Leu Ile Tyr Cys Trp 20 25 Gln Glu Ser Lys Phe Ile Gln Ala Phe Trp Ser Lys Ile Gln Gln Tyr 40 45 Leu Ala Xaa Ile Ser Ile His Ile Leu Phe Asp Pro Ala Phe Leu Phe 55 60 Leu Gly Gly Tyr Pro Gly Gly Thr Gln Ser Val Phe Leu Thr Gly Val 70 Leu Val Ser Ser Val Phe Tyr Asn Met Lys Met Leu His Thr Arg Leu 85 90 Leu Ile Ala Ala Leu Phe Ile Ile Val Gln Tyr Trp Lys Gln Ser Lys-100 105 Asp His Tyr Ile 115 116

<210> 2441 <211> 120 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (119) <223> Xaa = any amino acid or nothing

<400> 2441 Tyr Pro Leu Pro Val Cys Ser Tyr Leu Ser Gly Pro Arg Gly Glu His 10 Trp Asn Ser Leu Gly Gly Lys Ser Ser Cys Pro Leu Pro Leu Pro Thr 25 Leu Val Ser Ser Arg Phe Lys Ile Ser Lys Val Ile Val Val Gly Asp Leu Ser Val Gly Lys Thr Cys Leu Ile Asn Arg Xaa Gly Gly Ala Gly 55 Ala Glu Leu Gly Arg Val Gly Pro Ser Leu Ala Arg Trp Ala Gly Ser 70 75 Arg Ser Gln His Leu Val Pro Ser Gln Val Cys Lys Asp Ser Phe Asp 90 Lys Asn Tyr Lys Ala Pro Ile Gly Ala Asp Phe Glu Met Glu Arg Phe 105 100 Glu Val Leu Gly Ile Pro Phe 115

<210> 2442

<211> 88
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (87)
<223> Xaa = any amino acid or nothing

<210> 2443
<211> 919
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(915)
<223> Xaa = any amino acid or nothing

<400> 2443 Ala Leu Leu Gly Leu Gln Gln Pro Ala Gln Ser Leu Ile Leu Ser Arg 1 10 15 Ser Ser Val Met Gly Val Arg Gly Leu Gln Gly Phe Val Gly Ser Thr 20 25 Cys Pro His Ile Cys Thr Val Val Asn Phe Lys Glu Leu Ala Glu His 40 His Arg Ser Lys Tyr Pro Gly Cys Thr Pro Thr Ile Val Val Asp Ala 55 Met Cys Cys Leu Arg Tyr Trp Tyr Thr Pro Glu Ser Trp Ile Cys Gly 70 75 Gly Gln Trp Arg Glu Tyr Phe Ser Ala Leu Arg Asp Phe Val Lys Thr 85 90 Phe Thr Ala Ala Gly Ile Lys Leu Ile Phe Phe Phe Asp Gly Met Val Glu Gln Asp Lys Arg Asp Glu Trp Val Lys Arg Arg Leu Lys Asn Asn 115 120 125 115 120 Arg Glu Ile Ser Arg Ile Phe His Tyr Ile Lys Ser His Lys Glu Gln 135 140 Pro Gly Arg Asn Met Phe Phe Ile Pro Ser Gly Leu Ala Val Phe Thr 150 155 160 Arg Phe Ala Leu Lys Thr Leu Gly Gln Glu Thr Leu Cys Ser Leu Gln 165 170 Glu Ala Asp Tyr Glu Val Ala Ser Tyr Gly Leu Gln His Asn Cys Leu 180 185 190 Gly Ile Leu Gly Glu Asp Thr Asp Tyr Leu Ile Tyr Asp Thr Cys Pro 195 200 205 Tyr Phe Ser Ile Ser Glu Leu Cys Leu Glu Ser Leu Asp Thr Val Met

215

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Leu Cys Arg Glu Lys Leu Cys Glu Ser Leu Gly Leu Cys Val Ala Asp
Leu Pro Leu Leu Ala Cys Leu Leu Gly Asn Asp Ile Ile Pro Glu Gly
                                   250
              245
Met Phe Glu Ser Phe Arg Tyr Lys Cys Leu Ser Ser Tyr Thr Ser Val
           260
                              265
Lys Glu Asn Phe Asp Lys Lys Gly Asn Ile Ile Leu Ala Val Ser Asp
                           280
His Ile Ser Lys Val Leu Tyr Leu Tyr Gln Gly Glu Lys Lys Leu Glu
                                          300
                       295
Glu Ile Leu Pro Leu Val Thr Lys Gln Ser Ser Phe Leu Xaa Arg Asn
                   310
                                  315
Gly Ile Ile Ser Phe Thr Arg Thr Ile Asn Leu His Gly Phe Ser Lys
               325
                                   330
Asn Pro Lys Val Xaa Xaa Leu Trp Thr Asn Lys Xaa Tyr Pro Arg Val
           340
                              345
Gln Thr Pro Asn Pro Gly Lys Lys Phe Pro Cys Val Gln Met Leu Asn
                           360
                                              365
Pro Gly Lys Lys Phe Pro Cys Val Gln Ala Leu Asn Pro Gly Glu Lys
                      375
                                           380
Phe Pro Cys Ile His Ile Pro Glu Pro Arg Gln Glu Val Pro Thr Cys
                   390
                                       395
Ser Asp Pro Glu Pro Arg Gln Glu Val Pro Thr Cys Thr Gly Pro Glu
               405
                                   410
Ser Arg Arg Glu Val Pro Met Cys Ser Asp Pro Glu Pro Arg Gln Glu
                               425
Val Pro Met Cys Thr Gly Pro Glu Pro Arg Gln Glu Val Pro Met Cys
                          440
Thr Gly Pro Glu Ala Arg Gln Glu Val Pro Met Cys Thr Asp Ser Glu
                      455
                                          460
Pro Arg Gln Glu Val Pro Met Cys Thr Asp Ser Glu Pro Arg Gln Glu
                   470
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Val Pro Met Tyr Thr Gly Ser Glu Pro Arg Gln Glu Val Pro Met Tyr
                                   490
               485
Thr Gly Pro Glu Ser Arg Gln Glu Val Pro Met Tyr Thr Gly Pro Glu
                               505
           500
Ser Arg Gln Glu Val Leu Ile Arg Thr Asp Pro Glu Ser Arg Gln Glu
                           520
                                              525
Ile Met Cys Thr Gly His Glu Ser Lys Gln Glu Val Pro Ile Cys Thr
                      535
                                          540
Asp Pro Ile Ser Lys Gln Glu Asp Ser Met Cys Thr His Ala Glu Ile
                 550
                                      555
Asn Gln Lys Leu Pro Val Ala Thr Asp Phe Glu Phe Lys Leu Glu Ala
               565
                                   570
Leu Met Cys Thr Asn Pro Glu Ile Lys Gln Glu Asp Pro Thr Asn Val
                               585
Gly Pro Glu Val Lys Gln Gln Val Thr Met Val Ser Asp Thr Glu Ile
                           600
Leu Lys Val Ala Arg Thr His His Val Gln Ala Glu Ser Tyr Leu Val
                       615
                                          620
Tyr Asn Ile Met Ser Ser Gly Glu Ile Glu Cys Ser Asn Thr Leu Glu
                   630
                                       635
Asp Glu Leu Asp Gln Ala Leu Pro Ser Gln Ala Phe Ile Tyr Arg Pro
                                   650
               645
Ile Arg Gln Arg Val Tyr Ser Leu Leu Glu Asp Cys Gln Asp Val
           660
                               665
Thr Ser Thr Cys Leu Ala Val Lys Glu Trp Phe Val Tyr Pro Gly Asn
                           680
Pro Leu Arg His Pro Asp Leu Val Arg Pro Leu Gln Met Thr Ile Pro
                       695
                                           700
Gly Gly Thr Pro Ser Leu Lys Ile Leu Trp Leu Asn Gln Glu Pro Glu
                                      715
                   710
Ile Gln Val Arg Arg Leu Asp Thr Leu Leu Ala Cys Phe Asn Leu Ser
                                   730
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Ser Ser Arg Glu Glu Leu Gln Ala Val Glu Ser Pro Phe Gln Ala Leu Cys Cys Leu Leu Ile Tyr Leu Phe Val Gln Val Asp Thr Leu Cys Leu Glu Asp Leu His Ala Phe Ile Ala Gln Ala Leu Cys Leu Gln Gly Lys Ser Thr Ser Gln Leu Val Asn Leu Gln Pro Asp Tyr Ile Asn Pro Arg Ala Val Gln Leu Gly Ser Leu Leu Val Arg Gly Leu Thr Thr Leu Val Leu Val Asn Ser Ala Cys Gly Phe Pro Trp Lys Thr Ser Asp Phe Met Pro Trp Asn Val Phe Asp Gly Lys Leu Phe His Gln Lys Tyr Leu Gln Ser Glu Lys Gly Tyr Ala Val Glu Val Leu Cys Arg Thr Lys Xaa Ile Ser Ala His Gln Ile Pro Gln Pro Glu Gly Ser Arg Leu Gln Gly Leu His Glu Gly Glu Gln Thr His His Trp Pro Ser Pro Leu Gly Leu Thr Pro Arg Arg Glu Val Gly Lys Thr Gly Leu Gln Leu Pro Gln Asp Gly Leu Trp Val 

<210> 2444

<211> 246

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (245)

<223> Xaa = any amino acid or nothing

## <400> 2444

Ala Arg Glu Ala Cys Arg Ala Lys Thr Asp Phe Pro Gly Arg Arg Phe Arg Leu Trp Pro Ser Cys Cys Cys Arg Val Ile Val Gly Ala Glu Thr Kaa His Met Ala Glu Pro Val Ser Pro Leu Lys His Phe Val Leu Ala Lys Lys Ala Ile Thr Ala Ile Phe Asp Gln Leu Leu Glu Phe Val Thr Glu Gly Ser His Phe Val Glu Ala Thr Tyr Lys Asn Pro Glu Leu Asp Arg Ile Ala Thr Glu Asp Asp Leu Val Glu Met Gln Gly Tyr Lys Asp Lys Leu Ser Ile Ile Gly Glu Val Leu Ser Arg Arg His Met Lys Val Ala Phe Phe Gly Arg Thr Ser Ser Gly Lys Ser Ser Val Ile Asn Ala Met Leu Trp Asp Lys Val Leu Pro Ser Gly Ile Gly Ris Ile Thr Asn Cys Phe Leu Ser Val Glu Gly Thr Asp Gly Asp Lys Ala Tyr Leu Met Thr Glu Gly Ser Asp Glu Lys Lys Ser Val Lys Thr Val Asn Gln Leu Ala His Ala Leu His Met Asp Lys Asp Leu Lys Ala Gly Cys Leu Val Arg Val Phe Trp Pro Lys Ala Lys Cys Ala Leu Leu Arg Asp Asp Leu 

Val Leu Val Asp Gly Pro Gly Thr Asp Val Thr Thr Glu Leu Asp Ser 210 215 220

Trp Ile Asp Lys Phe Cys Thr Lys Ser Ser Thr Arg Glu Ile Thr Asn 225 230 235 240

Ser Gly Ser Asp Thr 245

<210> 2445
<211> 181
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(179)
<223> Xaa = any amino acid or nothing

<400> 2445 Leu Val Leu Asn Ser Arg Val Glu Asp Phe Val Pro Pro Glu Gly Ala 5 10 Gly Arg Thr Leu Pro Phe Ala Leu Arg Pro Leu Ala Ala Cys Trp Leu 20 25 Leu His Arg Arg Ala Arg Arg Ser Ser Ala Leu Cys Pro Arg Pro Arg 35 40 Ser Trp Gly Val Ser Gly Gly Glu Gly Ala Gly Ala Arg Glu Pro Xaa Ile Thr Ser Ser Ser Cys Cys Leu Ser Ala Ala Ser His Leu Ser Ile Gln Ser Pro Asn Met Ala Gly Ala Arg Arg Arg Ile Arg Pro Gln Leu 90 85 Ala Lys Glu Lys Ile Glu Gly Cys His Ile Cys Thr Ser Val Thr Pro 105 100 Gly Glu Pro Gln Val Phe Leu Gly Lys Asp Lys Ala Phe Thr Phe Asp 120 125 Tyr Val Phe Asp Ile Asp Ser Gln Gln Glu Gln Ile Tyr Ile Gln Cys 130 135 140 Ile Glu Lys Leu Ile Glu Gly Cys Phe Glu Gly Tyr Asn Ala Thr Val 155 150 Phe Ala Tyr Gly Gln Thr Gly Ala Gly Lys Thr Tyr Thr Met Gly Thr 170 Gly Phe Asp 179

<211> 95
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(94)
<223> Xaa = any amino acid or nothing

<210> 2446

<210> 2447 <211> 122 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(121) <223> Xaa = any amino acid or nothing

<400> 2447 Ala Arg Ser Thr Gly Phe Trp Gly Glu Ile Leu Trp Cys Gly Phe Leu Lys Arg Ser Leu Ala Leu Ser Pro Arg Val Lys Cys Ser Gly Ala Ile 20 25 Leu Ala His Cys Asn Phe Arg His Ala Gly Phe Pro Pro Leu Ser Cys 35 40 45 Leu Ser Leu Pro Asn Arg Trp Glu Tyr Arg Arg Pro Pro Ala Arg Pro 50 55 60 Gly Lys Phe Phe Leu Val Phe Leu Val Glu Thr Gly Phe Gln Cys Gly 70 Kaa Asp Gly Leu Asp Leu Leu Thr Ser Arg Ser Ala Cys Leu Gly Leu 85 90 Pro Lys Cys Trp Asp Tyr Arg Arg Glu Pro Ala Ala Ser Ile Ile Phe 105 100 Gln Thr Thr Phe Phe Ile Asn Ser Lys 120 121

<211> 141 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... . (141) <223> Xaa = any amino acid or nothing

<210> 2448

<400> 2448 Lys Val Val Val Met Ser Cys Glu Asp Ile Asn Ile Ser Gly Ser Phe 10 Tyr Arg Asn Lys Leu Lys Tyr Leu Ala Phe Leu Cys Lys Arg Thr Ser 25 Thr Asn Pro Ser Gln Gly Pro Tyr His Leu Trp Val Pro Ser His Ile 40 Phe Trp Gln Thr Thr Cys Gly Arg Leu Pro His Lys Thr Lys Gln Gly 50 55 Xaa Ala Ala Leu Asp His Leu Lys Val Phe Asp Arg Ile Pro Leu Pro 65 75 Tyr Asp Lys Lys Gln Met Ala Val Ser Ala Thr Leu Glu Val Val 85 90 Arg Pro Lys Pro Xaa Arg Lys Phe Ala Tyr Leu Gly His Trp Ala Gln 105

<210> 2449

<211> 96

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (93)

<223> Xaa = any amino acid or nothing

<400> 2449

Ile Ile Phe Tyr Ser His Gln Gln Cys Met Arg Val Trp Gln Gly Cys 10 Gly Asp Ile Glu Thr Leu Ile His Cys Trp Xaa Glu Xaa Lys Ile Ile 20 25 30 His Ser Leu Trp Lys Thr Val Xaa Gln Phe Leu Lys Arg Leu Tyr Leu 40 45 His Leu Pro His Asn Ser Val Ile Ala Phe Leu Gly Ile Ser Pro Arg 55 60 Lys Ile Lys Thr Cys Pro Gln Asn Ser Cys Thr Ser Met Leu Ile Asn 65 70 75 Ala Ile His Asn Asp Gln Lys Trp Lys Lys Ile Asn Ile 90

<210> 2450

<211> 60

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (60)

<223> Xaa = any amino acid or nothing

<400> 2450

Arg Gln Ser Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Thr Ile

1 5 10 15

Ser Ala His Cys Arg Leu Cys Pro Leu Val Phe Thr Pro Leu Ser Cys
20 25 30

Leu Ser Leu Thr Ser Ser Trp Asp Tyr Arg Arg Pro Pro Pro His Pro
35

Ala Asn Phe Leu Tyr Phe Lys Xaa Arg Arg Gly Phe

<210> 2451

<211> 94

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(92)

<223> Xaa = any amino acid or nothing

<400> 2451 Leu Phe Phe Leu Arg Lys Val Ser Asn Gln Phe Leu Ser Pro Ser Leu 10 Leu Pro Val Asn Phe Gln Gly Phe Val Phe Ala Phe Leu Leu Leu 20 25 Leu Phe Leu Leu Phe Glu Met Glu Ser Leu Pro Val Ala Arg Val Glu 40 . 45 35 Cys Ser Gly Thr Ile Ser Ala His Cys Asn Leu Cys Leu Pro Gly Ser 55 60 Ser Asp Ser Pro Ala Ser Ala Ser Kaa Val Ala Gly Ile Thr Asp Met 70 75 Cys Arg Tyr Thr Gln Leu Ile Leu Phe His Ala Ser 85 90 92

<210> 2452 <211> 260 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(258) <223> Xaa = any amino acid or nothing

<400> 2452 Lys Thr Ser Met Phe Trp Lys Phe Asp Leu His Ser Ser Ser His Ile 5 Asp Thr Leu Leu Glu Arg Glu Asp Val Thr Leu Lys Glu Leu Met Asp 20 25 Glu Glu Asp Val Leu Gln Glu Cys Lys Ala Gln Asn Arg Lys Leu Ile 40 Glu Phe Leu Leu Lys Ala Glu Cys Leu Glu Asp Leu Val Ser Phe Ile 55 Xaa Glu Glu Pro Pro Gln Asp Met Asp Glu Lys Ile Arg Tyr Lys Tyr 70 Pro Asn Ile Ser Cys Glu Leu Leu Thr Ser Asp Val Ser Gln Met Asn 85 90 95 Asp Arg Leu Gly Glu Asp Glu Ser Leu Leu Met Lys Leu Tyr Ser Phe 100 105 110 Leu Leu Asn Asp Ser Pro Leu Asn Pro Leu Leu Ala Ser Phe Phe Ser 115 120 125 Lys Val Leu Ser Ile Leu Ile Ser Arg Lys Pro Glu Gln Ile Val Asp 135 140 Phe Leu Lys Lys Lys His Asp Phe Val Asp Leu Ile Ile Lys His Ile 150 155 Gly Thr Ser Ala Ile Met Asp Leu Leu Leu Arg Leu Leu Thr Cys Ile 165 170 175 Glu Pro Pro Gln Pro Arg Gln Asp Val Leu Asn Trp Phe Lys Val Gln 185 190 180 Arg Asn Leu Xaa His Ser Thr Xaa Asn Val Met Asp Ile Ser Lys Tyr 200 205 Val Asn Leu His Trp Gly Leu Asn Lys Ser His Ser Leu Leu Xaa Leu 215 220 Leu Leu Gln Cys Val Leu Gln Trp Leu Asn Glu Glu Lys Ile Ile Gln 230 235 Arg Leu Val Glu Ile Val His Pro Ser Gln Glu Glu Asp Val Ser Ser 250 Leu Val

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<210> 2453
<211> 139
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(134)
<223> Xaa = any amino acid or nothing
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<400> 2453 Gly Leu His Val Tyr Asp Phe Gln Val Tyr Arg Glu His Ile Leu Thr Leu Asn Val Lys Lys Cys Ser Val Ser Phe Trp Gly Leu Arg Glu Trp 20 Leu Tyr Leu Gln Met Tyr Glu Ile Ile Lys Ser Pro Arg Phe Pro Ile 35 40 Ile Lys Met Thr Asp Ile Thr Lys Cys Trp Xaa Gly Cys Gly Ala Ala 60 55 Gly Met Gln Ile His Cys Trp Trp Cys Val Asn Val Gly Lys Phe Trp 70 75 Glu Met Ser Xaa Tyr Tyr Leu Leu Lys Leu Ser Ile Ser Thr Pro Tyr 90 85 Asp Pro Ala Ile Pro Leu Leu Gly Ile Tyr Leu Xaa Glu Thr Arg Val 105 110 100 Tyr Ile His Pro Lys Thr Cys Met Arg Met Leu Ile Ala Ala Pro Phe 115 120 Val Leu Ala Val Asn Cys 130 134

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<210> 2454

<211> 108

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(105)

<223> Xaa = any amino acid or nothing
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<400> 2454 Lys Trp Leu Phe Ser Ser Leu Asn Ile Thr Gly Arg Gly Asp Ile Ile 5 10 Gly His Leu Lys Trp Leu Asp Cys Arg Asn Cys Ser Ser Phe Pro Ile 20 25 Lys Arg Asn Arg Gln Thr His Ser Thr Glu Ser Asn Lys Leu Lys Ala Gly His Ser Phe Gly Tyr Asn Xaa Leu Ile His Xaa Asn Ser Val Lys 55 60 Thr Asp Cys Gly Cys Gly Ala Asn Ser Lys Gly Val Val Val Val Met
65 70 75 80 70 75 Lys Val Lys Thr Ala Gln Gln Lys Gln Thr Thr Ser Tyr Met Gln Ile Gly Thr Thr Lys Asn Ser Arg Ala Thr 100

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<210> 2455
<211> 139
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<213> Homo sapiens

<221> misc_feature <222> (1) ... (138) <223> Xaa = any amino acid or nothing <400> 2455 Asp Leu Leu Ile Leu Arg Asn Leu Ala Phe Pro Glu Leu Lys Arg Arg 5 10 Asn Cys Ile Ser Arg Phe Tyr Leu Ala Tyr His Leu His Lys Ile Tyr 20 25 Ser Arg Ser Ile Leu Leu Cys Asn Asn Cys Ser Gly Phe Tyr Ile Leu 40 Ser Leu Xaa Gln Tyr Asp Val Phe Phe Phe Asn Tyr Phe Phe Phe Arg 55 Asp Arg Ala Trp Pro Cys Cys Pro Gly Trp Ser Ala Ala Trp Leu Thr 70 75 Ile Val Ile Leu Ala His Tyr Arg Arg Pro Gly Leu Glu Arg Ser Cys Cys Leu Ser Leu Ser Ser Ser Trp Asp His Arg Arg Val Pro Pro Cys 100 105 110 Pro Ala Asn Phe Xaa Tyr Phe Ser Met Gly Phe Thr Ala Phe Pro Arg 115 120 125 Leu Val Leu Asn Ser Xaa Thr Gln Gly Ile 135 <210> 2456 <211> 48 <212> PRT <213> Homo sapiens <221> misc feature <222> (1)...(48) <223> Xaa = any amino acid or nothing <400> 2456 Glu Ser Gly Ser Leu Ile His Xaa Trp Trp Glu Asn Lys Pro Ala Gln 5 Pro Leu Trp Trp Glu Ile Xaa Gln His Val Gln Lys Leu Pro Thr His 20 25 30 Phe Pro Cys Asp Pro Ala Ile Pro Leu Leu Gly Ile Cys Pro Glu Asp 40 45 <210> 2457 <211> 192 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(188) <223> Xaa = any amino acid or nothing <400> 2457 Lys Pro Ser Ser Gly Ser Phe Ile Arg Ala Ile Tyr Ile Phe Leu Ser

10

Thr Ala His Val Pro Ala Leu Phe Ser Val Leu Val Arg Thr Lys Leu 25 Thr Xaa Ala Phe Ser Gln Ser Ser Val Leu Trp Ala His Lys Gln Gln 40 Lys Thr Ser Leu Ser Leu Val Ile Arg Glu Arg Leu Gln Ile Lys Thr 55 Ala Val Arg Glu Asn Phe Leu Pro Ile Arg Leu Ala Lys Ile Leu Lys 75 70 Leu Asp Asn Val Lys Cys Trp Gln Gly Ser Gly Ser Asn Met Ser Leu 90 Ile His Cys Trp Trp Glu Tyr Asn Val Ile His Ile Ile Trp Asn Ser 105 Val Thr Phe Pro Arg Lys Val Glu His Val Tyr Ile Thr Tyr Ala Pro 120 125 Glu Ile Ser Val Arg Xaa Ile His Gly Gly Leu Pro Thr Leu Val His 135 140 Gln Glu Thr His Thr Ser Val Phe Arg Gly Ala Pro Ser Val Ile Pro 150 155 Glu Thr Arg Cys Arg Pro Thr Lys Glu Ser Ile Asn Lys Leu Leu His 165 170 Ile Tyr Thr Met Glu His Tyr Gly Asp Glu Asn Lys 180 185

<210> 2458 <211> 180 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(179) <223> Xaa = any amino acid or nothing

<400> 2458 Gly Gly Asn Asp Cys Ser Val Thr Pro Thr Thr Glu Pro Gly Arg Lys 10 Glu Ile Thr Xaa Lys Arg Lys Phe Xaa Glu Lys Thr Asp Arg Leu Pro 25 20 Gly Ala Pro Pro Ser Arg Thr Pro Pro Thr Pro Tyr Pro Cys Pro His 35 40 45 Gly Asp Arg Leu Leu Pro Pro Ser Arg Pro Leu Pro Ala Gly Pro Ala 55 Ser Ala Phe Pro Pro Ala Glu Arg Ser Arg Gly His Arg Arg Ala Ser 70 75 Leu Xaa Arg Ala Arg Trp Ser Ala Ala Val Pro Arg Arg Ser Ala Gly 85 90 Ser Ala Ser Glu Pro Val Gln Ser Arg Trp Leu Arg Leu Pro Val Gly 105 100 Ser Asp Ser Pro Pro Ala Val Pro Val Arg Val Cys Pro Ala Pro Asp 115 120 Ser Arg Pro Ala Ala Pro Gly Ser Arg Leu Pro Asp Pro Gly Leu Asp 130 135 140 Ser Pro Ala Pro Ser Arg Thr Pro Ser Ser Ser Val Asp Xaa Gly Gly 150 155 Gln Arg Pro Pro Pro Pro Ser Gly Asp Ser Leu Ser Pro Pro Gly Cys Cys Arg Tyr

<210> 2459

His Glu Ser Tyr His Val Asn Pro Asn Leu Cys Asn Pro Val Ala Pro 1 5 5 5 5 57

<210> 2460
<211> 109
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(108)
<223> Xaa = any amino acid or nothing

<400> 2460 Glu Glu Gln Phe Phe Phe Ala Val Gly Met Phe Pro Xaa Val Asp 10 Phe Leu Ala Pro Ala Ser Gly Glu Leu Trp Asp Arg Leu Arg Leu Thr 20 25 Cys Ser Arg Pro Phe Thr Arg His Gln Ser Phe Gly Leu Ala Phe Leu 35 40 45 Arg Val Cys Ser Ser Leu Asp Ser Leu Asp Asp Ser Val Val Gly Pro 60 Ser Ala Leu Leu Ser Ser Val Leu Asn Gln Gly Gly Arg Asn Val Leu 70 75 Glu Ala Arg Glu Ala Ala Lys His Pro Thr Ile Kaa Arg Gln Ser Leu 85 90 Leu Arg Lys Gln Arg Asn Lys Arg Met Ala Ile Pro 100 105

<210> 2461 <211> 23 <212> PRT <213> Homo sapiens

<210> 2462

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<211> 271
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(270)
<223> Xaa = any amino acid or nothing
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<400> 2462 Arg Arg Arg Gly Gly Ser Arg Pro Arg Arg Thr Pro Val Pro Ala 10 Pro Gly Pro Gly Pro Ser Phe Gly Met Asp Val Arg Phe Tyr Pro Ala 25 Ala Ala Gly Asp Pro Ala Ser Leu Asp Phe Ala Gln Cys Leu Gly Tyr 40 Tyr Gly Tyr Ser Lys Phe Gly Asn Asn Asn Asn Tyr Met Asn Met Ala 60 55 Glu Ala Asn Asn Ala Phe Phe Ala Ala Ser Glu Gln Thr Phe His Thr 70 75 Pro Ser Leu Gly Asp Glu Glu Phe Glu Ile Pro Pro Ile Thr Pro Pro 85 90 Pro Glu Ser Asp Pro Ala Leu Gly Met Pro Asp Val Leu Leu Pro Phe 100 105 Gln Ala Leu Ser Asp Pro Leu Pro Ser Gln Gly Ser Glu Phe Thr Pro 120 125 Gln Phe Pro Pro Gln Ser Leu Asp Leu Pro Ser Ile Thr Ile Ser Arg 135 140 Asn Leu Val Glu Gln Asp Gly Val Leu His Ser Ser Gly Leu His Met 155 150 Asp Gln Ser His Thr Gln Val Ser Gln Tyr Arg Gln Asp Pro Ser Leu 165 170 175 175 165 Ile Met Arg Pro Ser Ser Thr Xaa Pro Asp Ala Ala Arg Ser Gly Val 185 Met Pro Pro Ala Gln Leu Thr Thr Ile Asn Gln Ser Gln Leu Ser Ala 200 Gln Leu Gly Leu Asn Leu Gly Gly Ala Ser Met Pro His Thr Ser Pro 215 220 Ser Pro Pro Ala Ser Lys Ser Ala Thr Pro Ser Pro Ser Ser Ser Ile 230 235 Asn Glu Glu Asp Ala Asp Glu Ala Asn Arg Ala Ile Gly Glu Lys Arg 245 250 Ala Ala Pro Asp Ser Gly Lys Lys Pro Lys Thr Pro Lys Lys 260

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<210> 2463

<211> 134

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(134)

<223> Xaa = any amino acid or nothing
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Arg Pro Ala Asn Phe Phe Val Leu Leu Val Glu Thr Gly Phe Leu His 55 Val Gly Gln Ala Gly His Glu Pro Leu Thr Ser Gly Asp Pro Pro Ala 70 75 Ser Ala Ser Gln Ser Ala Gly Ile Thr Gly Val Ser His Gln Ala Trp 85 90 Pro Ser Phe Phe Ile Phe Ser Arg Asp Thr Val Leu Leu Cys Cys Ser 100 105 110 Gly Trp Ser Arg Thr Ser Gly Leu Lys Gln Ser Ala Cys Leu Ser Leu 115 120 125 Leu Lys Cys Trp Asp Tyr 130 134

<210> 2464 <211> 76 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(75) <223> Xaa = any amino acid or nothing

<400> 2464

<210> 2465
<211> 144
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(143)
<223> Kaa = any amino acid or nothing

<400> 2465

Gln Arg Pro Leu Leu Arg Gln Gln Leu Gly Ser Trp Pro Thr Cys Arg 5 10 Ser Leu Glu Gly Asp Leu Ala Ser Pro Trp Xaa Xaa Arg Leu Pro Gly 20 25 Ser Pro Arg Met Arg Arg Ser Gly Thr Ala Thr Leu Asn Leu Pro Leu 40 45 Ser Pro Gln Gly Thr Val Arg Thr Ala Val Glu Phe Gln Val Met Thr 55 60 Gln Thr Gln Ser Leu Ser Phe Leu Leu Gly Ser Ser Ala Ser Leu Asp 70 Cys Gly Phe Ser Met Ala Pro Gly Leu Asp Leu Ile Ser Val Glu Trp 90 Arg Leu Gln His Lys Gly Arg Gly Arg Gly Asp Leu His Leu Pro Asp 105

His His Leu Ser Val Pro Ser Ser Ala Asp His Pro Ala Gln Gln Pro
115
120
120
125
Ser Gln Phe Asn Gly Arg Asn Leu Tyr Phe Leu Pro Leu Phe Arg
130
135
140
143

<210> 2466
<211> 247
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (246)
<223> Xaa = any amino acid or nothing

<400> 2466 Ser Ala Ser His Glu Pro Ala Glu His Asp Gly Gly Ala Asp Ser Leu 10 Ser Ala Ser Gln Pro Pro Arg Pro Ala Gly Arg Pro Ala Gly Ala Gln 20 . 25 30 His Val His Val Pro Pro Trp Thr Asp Val Leu Ala Gly Gln Asp Arg 40 Arg Ala Pro Thr Ala Gly Asp Gly Ala Pro Trp Pro Ala Pro Gly Gly 55 60 His Val Pro Ser Thr Arg Pro His Asp Pro Ala Glu Phe His Ala Asp 70 75 Glu Ala Ala Gly Arg Gly Gly Arg Gly Leu Gln Pro Ala Ala Pro His 85 90 Ala Leu Pro Ala Gly Leu Pro His Gly Pro Pro Ala Pro Ala Pro Ala 100 105 110 Glu Gly Gly Gly Thr Pro Xaa Gly Ser Ala Gly Ala Gly Gly Pro Xaa 115 120 125 Gly Ser Pro Ala Gly Arg Ala Cys Gly Ala Ala Gly Cys Arg Pro Arg 135 140 Pro Pro Arg Pro Ala Ala Ser Ser Ala Xaa Asn Ser Ala Gly Ser Xaa 150 155 Gly Leu Val Glu Gly Thr Xaa Pro Pro Gly Ala Gly His Gly Ala Pro 170 175 165 Ser Pro Ala Val Gly Ala Arg Leu Ser Cys Pro Ala Arg Thr Ser Val 180 185 190 Gln Gly Gly Thr Trp Thr Cys Xaa Ala Pro Ala Gly Arg Pro Ala Gly 195 200 205 Leu Gly Gly Trp Glu Ala Glu Arg Glu Ser Ala Pro Pro Ser Cys Ser 210 215 220 Ala Gly Ser Xaa Asp Ala Asp Xaa Gly Ala Glu Pro Trp Gly Ala Gly 230 235 Ser Arg Ser Trp Gly Ser 245 246

<210> 2467 <211> 188 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(186) <223> Xaa = any amino acid or nothing

<400> 2467

Lys Ser Gly His Trp Ala Lys Glu Cys Leu Gln Pro Arg Ile Pro Pro Arg Pro Cys Pro Ile Cys Val Gly Pro His Trp Lys Ser Asp Cys Pro 20 25 Thr Cys Pro Gly Ala Val Pro Arg Ala Pro Gly Thr Leu Pro Gln Gly 35 40 45 40 Ser Leu Thr Asp Ser Phe Pro Asp Leu Leu Ser Leu Val Ala Glu Asp 55 60 Xaa Cys Cys Leu Met Ala Ser Glu Ala Ser Trp Thr Ile Thr Glu Leu 70 75 Trp Val Thr Leu Thr Val Glu Gly Lys Ser Val Pro Cys Leu Asn Thr 85 90 Glu Ala Thr His Ser Thr Leu Pro Ser Phe Gln Gly Pro Val Ser Leu 100 105 110 Ala Ser Ile Thr Val Val Gly Ile Asp Gly Gln Ala Ser Lys Pro Leu 115 120 125 120 Lys Thr Pro Gln Leu Trp Cys Gln Leu Gly Gln Tyr Ser Phe Met His 135 140 Tyr Phe Leu Val Ile Pro Thr Cys Pro Val Pro Leu Leu Gly Xaa Gly 145 150 155 Ile Leu Thr Lys Leu Ser Ala Phe Leu Thr Ile Pro Arg Leu Gln Pro 165 170 His Leu Ile Ala Ala Leu Ser Pro Ser Ser 180 185 186

<210> 2468 <211> 157 <212> PRT

<213> Homo sapiens

<221> misc_feature <222> (1)...(156) <223> Xaa = any amino acid or nothing

<400> 2468 Ala Ala Gly Gln Val Val Val Glu Val Thr Ser His Leu Tyr Leu Cys 10 1 5 Ile Thr Ser Asp Ala Ala Gly Leu Arg Leu Leu Pro Pro Ala Glu Ser 20 25 Glu Arg Gly Glu Gly Gly His Cys Pro Ala Glu Ala Pro Leu Pro Pro 40 Arg Pro Gln Tyr Cys Leu Ala Lys His Pro Leu Leu Arg Lys Leu Pro 55 Glu Glu Lys Ile Lys Leu Asp Pro Tyr Leu Thr Gln His Thr Lys Ile 75 . 70 Asn Ser Lys Gln Ile Lys Tyr Leu Ser Val Arg Ala Lys Thr Thr Gln 90 85 Leu Val Glu Gly Asn Ile Gly Val Asn Leu Gln Asn Thr Glu Leu Lys 105 110 100 Gln His Xaa Ile Asn Gly Phe Leu Asp Thr Thr Pro Glu Ala Gln Glu 115 120 125 Thr Lys Glu Lys Thr Asn Lys Leu Asn Phe Ile Lys Lys Val Lys Arg 135 140 130 Gln Leu Ala Glu Trp Glu Lys Ile Phe Gln Ile Ala 150 155 156

<210> 2469 <211> 1065 <212> PRT

<213> Homo sapiens

<221> misc_feature <222> (1)...(1060)

<223> Xaa = any amino acid or nothing

<400> 2469 Ala Cys Pro Arg Leu Ala Arg Arg Arg Arg Arg Val Arg Ser Leu Arg Arg Arg Arg Gly Trp Leu Arg Ala Arg Trp Ser Arg Gly Gln Asn Asn Met Ala Ala Arg Arg Ile Thr Gln Glu Thr Phe Asp Ala Val Leu Gln Glu Lys Ala Lys Arg Tyr His Met Asp Ala Ser Gly Glu Ala Val Ser Glu Thr Leu Gln Phe Lys Ala Gln Asp Leu Leu Arg Ala Val Pro Arg Ser Arg Ala Glu Met Tyr Asp Asp Val His Ser Asp Gly Arg Tyr Ser Leu Ser Gly Ser Val Ala His Ser Arg Asp Ala Gly Arg Glu Ser Leu Arg Ser Asp Val Phe Ser Gly Pro Ser Phe Arg Ser Ser Asn Pro Ser Ile Ser Asp Asp Ser Tyr Phe Arg Lys Glu Cys Gly Arg Asp Leu Glu Phe Ser His Ser Asn Ser Arg Asp Gln Val Ile Gly His Arg Lys Leu Gly His Phe Arg Ser Gln Asp Trp Lys Phe Ala Leu Arg Gly Ser Trp Glu Gln Asp Phe Gly His Pro Val Ser Gln Glu Ser Ser Trp Ser Gln Glu Tyr Ser Phe Gly Pro Ser Ala Val Leu Gly Asp Phe Gly Ser Ser Arg Leu Ile Glu Lys Glu Cys Leu Glu Lys Glu Ser Arg Asp Tyr Asp Val Asp His Pro Gly Glu Ala Asp Ser Val Leu Arg Gly Gly Ser Gln Val Gln Ala Arg Gly Arg Ala Leu Asn Ile Val Asp Gln Glu Gly Ser Leu Leu Gly Lys Gly Glu Thr Gln Gly Leu Leu Thr Ala Lys Gly Gly
260 265 270 Val Gly Lys Leu Val Thr Leu Arg Asn Val Ser Thr Lys Lys Ile Pro Thr Val Asn Arg Ile Thr Pro Lys Thr Gln Gly Thr Asn Gln Ile Gln Lys Asn Thr Pro Ser Pro Asp Val Thr Leu Gly Thr Asn Pro Gly Thr Glu Asp Ile Gln Phe Pro Ile Gln Lys Ile Pro Leu Gly Leu Asp Leu Lys Asn Leu Arg Leu Pro Arg Arg Lys Met Ser Phe Asp Ile Ile Asp Lys Ser Asp Val Phe Ser Arg Phe Gly Ile Glu Ile Ile Lys Trp Ala 355 360 365 Gly Phe His Thr Ile Lys Asp Asp Ile Lys Phe Ser Gln Leu Phe Gln Thr Leu Phe Glu Leu Glu Thr Glu Thr Cys Ala Lys Met Leu Ala Ser 385 390 Phe Lys Cys Ser Leu Lys Pro Glu His Arg Asp Phe Cys Phe Phe Thr Ile Lys Phe Leu Lys His Ser Ala Leu Lys Thr Pro Arg Val Asp Asn Glu Phe Leu Asn Met Leu Leu Asp Lys Gly Ala Val Lys Thr Lys Asn 445 .

Cys Phe Phe Glu Ile Ile Lys Pro Phe Asp Lys Tyr Ile Met Arg Leu Gln Asp Arg Leu Leu Lys Ser Val Thr Pro Leu Leu Met Ala Cys Asn Ala Tyr Glu Leu Ser Val Lys Met Lys Thr Leu Ser Asn Pro Leu Asp Leu Ala Leu Ala Leu Glu Thr Thr Asn Ser Leu Cys Arg Lys Ser Leu Ala Leu Leu Gly Gln Thr Phe Ser Leu Ala Ser Ser Phe Arg Gln Glu Lys Ile Leu Xaa Ala Val Gly Leu Gln Asp Ile Ala Pro Ser Pro Ala Ala Phe Pro Asn Phe Glu Asp Ser Thr Lieu Phe Gly Arg Glu Tyr Ile Asp His Leu Lys Ala Trp Leu Val Ser Ser Gly Cys Pro Leu Gln Val Lys Lys Ala Glu Pro Glu Pro Met Arg Glu Glu Lys Met Ile Pro Pro Thr Lys Pro Glu Ile Gln Ala Lys Ala Pro Ser Ser Leu Ser Asp Ala Val Pro Gln Arg Ala Asp His Arg Val Val Gly Thr Ile Asp Gln Leu Val Lys Arg Val Ile Glu Gly Ser Leu Ser Pro Lys Glu Arg Thr Leu Leu Lys Glu Asp Pro Ala Tyr Trp Phe Leu Ser Asp Glu Asn Ser Leu Glu Tyr Lys Tyr Tyr Lys Leu Lys Leu Ala Glu Met Gln Arg Met Ser Glu Asn Leu Arg Gly Ala Asp Gln Lys Pro Thr Ser Ala Asp Cys Ala Val Arg Ala Met Leu Tyr Ser Arg Ala Val Arg Asn Leu Lys Lys Lys Leu Leu Pro Trp Gln Arg Arg Gly Leu Leu Arg Ala Gln Gly Leu Arg Gly Trp Lys Ala Arg Arg Ala Thr Thr Gly Thr Gln Thr Leu Leu Phe Leu Arg Ala Pro Gly Leu Lys His His Gly Arg Gln Ala Pro Gly Leu Ser Gln Ala Lys Pro Ser Leu Pro Asp Arg Asn Asp Ala Ala Lys Asp Cys Pro Pro Asp Pro Val Gly Pro Ser Pro Gln Asp Pro Ser Leu Glu Ala Ser Gly Pro Ser Pro Lys Pro Ala Gly Val Asp Ile Ser Glu Ala Pro Gln Thr Ser Ser Pro Cys Pro Ser Ala Asp Ile Asp Met Lys Thr Met Glu Thr Ala Glu Lys Leu Ala Arg Phe Val Ala Gln Val Gly Pro Glu Ile Glu Gln Phe Ser Ile Glu Asn Ser Thr Asp Asn Pro Asp Leu Trp Phe Leu His Asp Gln Asn Ser Ser Ala Phe Lys Phe Tyr Arg Lys Lys Val Phe Glu Leu Cys Pro Ser Ile Cys Phe Thr Ser Ser Pro His Asn Leu His Thr Gly Gly Gly Asp Thr Thr Gly Ser Gln Glu Ser Pro Val Asp Leu Met Glu Gly Glu Ala Glu Phe Glu Asp Glu Pro Pro Pro Arg Glu Ala Glu Leu Glu Ser Pro Glu Val Met Pro Glu Glu Glu Asp Glu Asp Asp Glu Asp Gly Glu Glu Ala Pro Ala Pro Gly Gly Ala Gly Lys Ser Glu Gly Ser Thr Pro Ala Asp Gly Leu Pro Gly Glu 

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Ala Ala Glu Asp Asp Leu Ala Gly Ala Pro Ala Leu Ser Gln Ala Ser
              965
                               970
Ser Gly Thr Cys Phe Pro Arg Lys Arg Ile Ser Ser Lys Ser Leu Lys
                                              990
                            985
          980
Val Gly Met Ile Pro Ala Pro Lys Arg Val Cys Leu Ile Gln Glu Pro
995 1000 1005
Lys Gly Glu Cys Pro Pro Val Gly Thr Val Ala Ser Ser Thr Val Leu
                   1015
                              1020
Gly Trp Trp Ala Val Arg Val Arg Arg Asp Arg Trp Arg His Phe Asn
        1030 1035
Pro Lys Glu Phe Cys Ala Pro Leu Gln Asn Val Ser Arg His Ser Cys
                               1050 -
Phe Pro Val Val
         1060
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<210> 2470

<211> 28

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (28)

<223> Xaa = any amino acid or nothing

<210> 2471 <211> 85

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(84)

<223> Xaa = any amino acid or nothing

<400> 2471 Pro Met Ser Ser Leu Gln Gly Cys Phe Tyr Thr Phe Lys Cys Ile Ile 10 Phe Lys Gly Ile Phe Leu Leu Leu Ile Ser Asn Leu Ile Ala Phe Xaa 20 25 Xaa Glu Lys Val Cys Ser His Ile Thr Asp Ser Leu Lys Phe Ile Gly Lys Gly Trp Val Gly Met Val Thr His Ala Cys Asn Pro Gly Thr Leu 55 60 50 Gly Gly Kaa Gly Gly Trp Ile Ala Xaa Val Arg Glu Phe Glu Thr Ser 75 70 65 Leu Gly Asn Met

84

<210> 2472

<211> 69

<212> PRT

## <213> Homo sapiens

<210> 2473 <211> 138 <212> PRT

<213> Homo sapiens

<400> 2473 Met Val Asp Arg Ser Pro Leu Leu Thr Ser Val Ile Ile Phe Tyr Leu 10 Ala Ile Gly Ala Ala Ile Phe Glu Val Leu Glu Glu Pro His Trp Lys 20 Glu Ala Lys Lys Asn Tyr Tyr Thr Gln Lys Leu His Leu Leu Lys Glu 35 4040 Phe Pro Cys Leu Gly Gln Glu Gly Leu Asp Lys Ile Leu Glu Val Val 55 60 Ser Asp Ala Ala Gly Gln Gly Val Ala Ile Thr Gly Asn Gln Thr Phe 70 75 Asn Asn Trp Asn Trp Pro Asn Ala Met Ile Phe Ala Ala Thr Val Ile 85 Thr Thr Ile Gly Tyr Gly Asn Val Ala Ser Lys Thr Pro Gly Gly Arg Leu Phe Cys Gly Phe Tyr Gly Leu Phe Gly Val Pro Phe Cys Leu Thr 115 120 Trp Ile Asn Ala Leu Gly Lys Phe Phe Gly

135 . 138

<210> 2474 <211> 125 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(124) <223> Xaa = any amino acid or nothing

 <400> 2474

 Gly Pro Ser Pro Ser Leu Leu Leu Val Leu Leu Pro Gln Glu Pro Gly Gly 1
 5
 10
 15

 Thr Gly Thr Pro Val Arg Ala Gly Ala Gly Ala Gly Met Trp Leu Trp 20
 25
 30

 Glu Asp Gln Gly Gly Leu Leu Gly Pro Phe Ser Phe Leu Met Leu Met 35
 40
 45

 Leu Leu Leu Glu Thr Arg Asn Pro Val Asn Ala Cys Leu Leu Thr Gly 50
 55
 60

<210> 2475 <211> 172 <212> PRT <213> Homo sapiens

<400> 2475 Glu Ser Ser Ser Gly Leu Leu Phe Gln Cys Phe Gln Gly Ile His Val 10 Gln Lys Leu Thr Leu Gln Ala Arg Pro Thr Leu Phe Ser Trp Trp Leu 30 20 25 Cys Ser Lys Pro Pro Lys Glu Thr Gly Glu Leu Glu Asn Ala Glu Ser 40 Gly Gly Asp Gly Gly Arg Arg Gly Gly Lys Gln Asp Asn Val Ala Trp 55 Trp Arg Arg Met Gln Lys Gly Asp Phe Pro Trp Asp Asp Glu Asp Phe 75 70 Pro Gln Ser Gly Pro Phe Gly Gly Gln Ala Leu Pro Met Gly Phe Phe 85 90 95 85 Tyr Leu Tyr Phe Arg Asp Pro Gly Arg Glu Ile Thr Trp Lys His Phe 100 105 110 Val Gln Tyr Tyr Leu Ala Arg Gly Leu Val Asp Arg Leu Glu Val Val 120 125 Asn Lys Gln Ser Val Arg Val Ile Pro Ala Pro Gly Thr Ser Ser Glu 135 140 Val Arg Gly Glu Phe Lys Ala Glu Tyr Cys Arg His Lys Phe Ile Ser 145 150 155 Cys Lys Asn Val Val Phe Tyr Phe Phe Gln

<210> 2476 <211> 27 <212> PRT <213> Homo sapiens

<210> 2477 <211> 107 <212> PRT <213> Homo sapiens

<400> 2477

Leu Thr Gly Gln Leu Gly Ser Ile Leu Leu Arg Val Phe Ser Lys Ser 10 Arg Ala Gly Leu Gly Ala Arg Lys Leu Lys Ala Tyr Arg Thr Met Glu 20 25 Tyr Met Ala Glu Ser Thr Asp Arg Ser Pro Gly His Ile Leu Cys Cys 35 40 Glu Cys Gly Val Pro Ile Ser Pro Asn Pro Ala Gln Tyr Cys Val Ala 55 60 Cys Leu Arg Ser Ser Phe His Ile Tyr His Cys Ile Pro Lys Leu Phe 70 75 Ile His Pro Phe Ser Lys Thr Ser Ser Ser Ala Phe Ile Thr Pro Ser 85 90 His Tyr Leu Thr Phe Phe Ser Thr Ile Ser

<210> 2478 <211> 223 <212> PRT <213> Homo sapiens

<400> 2478

Val Leu Lys Phe Leu Leu Gln Thr Met Asp Glu Gln Ser Gln Gly 5 10 Met Gln Gly Pro Pro Val Pro Gln Phe Gln Pro Gln Lys Ala Leu Arg 20 25 Pro Asp Met Gly Tyr Asn Thr Leu Ala Asn Phe Arg Ile Glu Lys Lys 40 Ile Gly Arg Gly Gln Phe Ser Glu Val Tyr Arg Ala Ala Cys Leu Leu 55 60 Asp Gly Val Pro Val Ala Leu Lys Lys Val Gln Ile Phe Asp Leu Met 70 75 Asp Ala Lys Ala Arg Ala Asp Cys Ile Lys Glu Ile Asp Leu Leu Lys 85 Gln Leu Asn His Pro Asn Val Ile Lys Tyr Tyr Ala Ser Phe Ile Glu 100 105 Asp Asn Glu Leu Asn Ile Val Leu Glu Leu Ala Asp Ala Gly Asp Leu 120 Ser Arg Met Ile Lys His Phe Lys Lys Gln Lys Arg Leu Ile Pro Glu 130 135 140 Arg Thr Val Trp Lys Tyr Phe Val Gln Leu Cys Ser Ala Leu Glu His 150 155 Met His Ser Arg Arg Val Met His Arg Asp Ile Lys Pro Ala Asn Val 165 170 Phe Ile Thr Ala Thr Gly Val Val Lys Leu Gly Asp Leu Gly Leu Gly 180 185 190 185 190 Arg Phe Phe Ser Ser Lys Thr Thr Ala Ala His Ser Leu Val Gly Thr 195 200 Pro Tyr Tyr Met Ser Pro Glu Arg Ile His Asp Asn Gly 215 210

<210> 2479 <211> 123 <212> PRT <213> Homo sapiens

<210> 2480 <211> 119 <212> PRT <213> Homo sapiens

<400> 2480 Ala Tyr Leu Lys Arg Leu Pro Val Pro Glu Ser Ile Thr Gly Phe Ala Arg Leu Thr Val Ser Glu Trp Leu Arg Leu Leu Pro Phe Leu Gly Val 25 Leu Ala Leu Leu Gly Tyr Leu Ala Val Arg Pro Phe Leu Pro Lys Lys 40 Lys Gln Gln Lys Asp Ser Leu Ile Asn Leu Lys Ile Gln Lys Glu Asn 55 Pro Lys Val Val Asn Glu Ile Asn Ile Glu Asp Leu Cys Leu Thr Lys 75 70 Ala Ala Tyr Cys Arg Cys Trp Arg Ser Lys Thr Phe Pro Ala Cys Asp 85 90 Gly Ser His Asn Lys His Asn Glu Leu Thr Gly Asp Asn Val Gly Pro 100 105 Leu Ile Leu Lys Lys Lys Glu 115

<210> 2481 <211> 141 <212> PRT <213> Homo sapiens

<400> 2481 Lys Glu Leu Val Asp Glu Lys Ser Glu Arg Gly Arg Ala Met Asp Pro Val Ser Gln Leu Ala Ser Ala Gly Thr Phe Arg Val Leu Lys Glu Pro 25 20 Leu Ala Phe Leu Arg Ala Leu Glu Leu Leu Phe Ala Ile Phe Ala Phe 40 Ala Thr Cys Gly Gly Tyr Ser Gly Gly Leu Arg Leu Ser Val Asp Cys 55 Val Asn Lys Thr Glu Ser Asn Leu Ser Ile Asp Ile Ala Phe Ala Tyr 70 75 Pro Phe Arg Leu His Gln Val Thr Phe Glu Gly Pro Thr Cys Glu Gly 95 85 90 Lys Glu Arg His Lys Leu Ala Leu Ile Gly Asp Ser Ser Ser Ala

<210> 2482 <211> 285 <212> PRT <213> Homo sapiens

<400> 2482 Gly Gly Gly Arg Ala Gly Ala Gly Ser Arg Asp Met Gly Ser Thr Asp 10 Ser Lys Leu Asn Phe Arg Lys Ala Val Ile Gln Leu Thr Thr Lys Thr 20 25 Gln Pro Val Glu Ala Thr Asp Asp Ala Phe Trp Asp Gln Phe Trp Ala 35 40 Asp Thr Ala Thr Ser Val Gln Asp Val Phe Ala Leu Val Pro Ala Ala 55 60 Glu Ile Arg Ala Val Arg Glu Glu Ser Pro Ser Asn Leu Ala Thr Leu 70 75 Cys Tyr Lys Ala Val Glu Lys Leu Val Gln Gly Ala Glu Ser Gly Cys 90 His Ser Glu Lys Glu Lys Gln Ile Val Leu Asn Cys Ser Arg Leu Leu 100 105 110 Thr Arg Val Leu Pro Tyr Ile Phe Glu Asp Pro Asp Trp Arg Gly Phe 120 125 Phe Trp Ser Thr Val Pro Gly Ala Gly Arg Gly Gly Gln Gly Glu Glu 135 140 Asp Asp Glu His Ala Arg Pro Leu Ala Glu Ser Leu Leu Leu Ala Ile 150 155 Ala Asp Leu Leu Phe Cys Pro Asp Phe Thr Val Gln Ser His Arg Arg 170 165 Ser Thr Val Asp Ser Ala Glu Asp Val His Ser Leu Asp Ser Cys Glu 180 185 190 Tyr Ile Trp Glu Ala Gly Val Gly Phe Ala His Ser Pro Gln Pro Asn 200 205 Tyr Ile His Asp Met Asn Arg Met Glu Leu Leu Lys Leu Leu Leu Thr 215 220 Cys Phe Ser Glu Ala Met Tyr Leu Pro Pro Ala Pro Glu Ser Trp Gln 230 235 His Arg Thr His Trp Phe Ser Ser Phe Val Ser Ser Glu Asn Arg His 245 250 Ala Leu Pro Leu Phe Thr Ser Leu Leu Asn Thr Val Cys Ala Tyr Asp 260 265 Pro Val Glu Tyr Gly Ile Pro Tyr Asn His Leu Tyr 280

<210> 2483 <211> 100 <212> PRT <213> Homo sapiens

Lys Val Leu Arg Gly Ala Glu Pro Cys Cys Gly Pro Leu Lys Asn Arg

35
Val Leu Arg Pro Cys Pro Leu Pro Val Pro Leu Pro Pro Pro His Pro

50
55
Gln Pro Ser Arg Gly Asn Pro Val Gly Cys Leu Pro Thr Tyr Lys Val
65
70
70
75
80
Val Tyr Lys Leu Leu Ser Trp Pro Leu His Ser Asn Ser Asn Val Tyr
85
90
95
Phe Ile Val

<210> 2484 <211> 507 <212> PRT

<213> Homo sapiens

<400> 2484 Met Ala Gly Ala Gly Pro Lys Arg Arg Ala Leu Ser Ala Pro Val Ala 10 Glu Glu Lys Glu Glu Ala Arg Glu Lys Ile Met Ala Ala Lys Arg Ala 20 25 Asp Gly Ala Ala Pro Ala Gly Glu Gly Glu Gly Val Thr Leu Gln Gly Asn Ile Thr Leu Leu Lys Gly Val Ala Val Ile Val Val Ala Ile Met 55 Gly Ser Gly Ile Phe Val Thr Pro Thr Gly Val Leu Lys Glu Ala Gly 70 75 Ser Pro Gly Leu Ala Leu Val Val Trp Ala Ala Cys Gly Val Phe Ser 85 90 Ile Val Gly Ala Leu Cys Tyr Ala Glu Leu Gly Thr Thr Ile Ser Lys 105 Ser Gly Gly Asp Tyr Ala Tyr Met Leu Asp Val Tyr Gly Ser Leu Pro 115 120 125 Ala Phe Leu Lys Leu Trp Ile Glu Leu Leu Ile Ile Arg Pro Ser Ser 135 140 Gln Tyr Ile Val Ala Leu Val Phe Ala Thr Tyr Leu Leu Lys Pro Leu 150 155 Phe Pro Thr Cys Pro Val Pro Glu Glu Ala Ala Lys Leu Val Ala Cys 165 170 Leu Cys Val Leu Leu Leu Thr Ala Val Asn Cys Tyr Ser Val Lys Ala 180 185 Ala Thr Arg Val Gln Asp Ala Phe Ala Ala Ala Lys Leu Leu Ala Leu 195 200 205 Ala Leu Ile Ile Leu Leu Gly Phe Val Gln Ile Gly Lys Gly Asp Val 215 Ser Asn Leu Asp Pro Asn Phe Ser Phe Glu Gly Thr Lys Leu Asp Val 230 235 Gly Asn Ile Val Leu Ala Leu Tyr Ser Gly Leu Phe Ala Tyr Gly Gly 250 255 245 Trp Asn Tyr Leu Asn Phe Val Thr Glu Glu Met Ile Asn Pro Tyr Arg 265 270 Asn Leu Pro Leu Ala Ile Ile Ile Ser Leu Pro Ile Val Thr Leu Val 280 285 Tyr Val Leu Thr Asn Leu Ala Tyr Phe Thr Thr Leu Ser Thr Glu Gln 295 300 Met Leu Ser Ser Glu Ala Val Ala Val Asp Phe Gly Asn Tyr His Leu 310 315 Gly Val Met Ser Trp Ile Ile Pro Val Phe Val Gly Leu Ser Cys Phe 325 330 335 Gly Ser Val Asn Gly Ser Leu Phe Thr Ser Ser Arg Leu Phe Phe Val

Gly Ser Arg Glu Gly His Leu Pro Ser Ile Leu Ser Met Ile His Pro 360 Gln Leu Leu Thr Pro Val Pro Ser Leu Val Phe Thr Cys Val Met Thr 370 375 380 Leu Phe Tyr Ala Phe Ser Lys Asp Ile Phe Ser Val Ile Asn Phe Phe 390 395 Ser Phe Phe Asn Trp Leu Cys Val Ala Leu Ala Ile Ile Gly Met Ile 410 Trp Leu Arg His Arg Lys Pro Glu Leu Glu Arg Pro Ile Lys Val Asn 425 430 420 Leu Ala Leu Pro Val Phe Phe Ile Leu Ala Cys Leu Phe Leu Ile Ala 435 440 445 Val Ser Phe Trp Lys Thr Thr Pro Trp Ser Val Ala Ser Asp Phe Thr 450 . 455 460 Ile Ile Leu Ser Gly Leu Pro Val Tyr Phe Phe Gly Val Trp Trp Lys 465 470 475 Asn Lys Pro Lys Trp Ala Pro Pro Gly His Leu Ser Pro Arg Pro Ser 485 490 Cys Val Arg Ser Ser Cys Met Val Val Pro Gln 500 505 507

<210> 2485 <211> 124 <212> PRT <213> Homo sapiens

<400> 2485 Arg Asp Arg Leu Pro Pro Ala Tyr Phe Cys Arg Pro Val Val Cys Val 5 10 Val Thr Ala Leu Asp Val Gly Ser Pro Glu Ser Gln Glu Met Asp Leu 20 25 Val Ala Phe Glu Asp Val Ala Val Asn Phe Thr Gln Glu Glu Trp Ser 35 40 45 Leu Leu Asp Pro Ser Gln Lys Asn Leu Tyr Arg Glu Val Met Gln Glu 50 55 60 Thr Leu Arg Asn Leu Ala Ser Ile Gly Glu Lys Trp Lys Asp Gln Asn 70 Ile Glu Asp Gln Tyr Lys Asn Pro Arg Asn Asn Leu Arg Ser Leu Leu 85 90 ' Gly Glu Arg Val Asp Glu Asn Thr Glu Glu Asn His Cys Gly Glu Thr 100 105 110 Ser Ser Gln Ile Pro Asp Asp Thr Leu Asn Lys 120

<210> 2486 <211> 327 <212> PRT <213> Homo sapiens

Ile Phe Phe Phe Gly Thr His Glu Thr Ala Phe Leu Gly Pro Lys Asp 70 75 Leu Phe Pro Tyr Asp Lys Cys Lys Asp Lys Tyr Gly Lys Pro Asn Lys Arg Lys Gly Phe Asn Glu Gly Leu Trp Glu Ile Gln Asn Asn Pro His 100 105 Ala Ser Tyr Ser Ala Pro Pro Pro Val Ser Ser Ser Asp Ser Glu Ala 120 125 115 Pro Glu Ala Asn Pro Ala Asp Gly Ser Asp Ala Asp Glu Asp Asp Glu 135 140 Gly Arg Gly Val Met Ala Val Thr Ala Val Thr Ala Thr Ala Ala Ser 150 155 Asp Arg Met Glu Ser Asp Ser Asp Ser Asp Lys Ser Ser Asp Asn Ser 165 170 Gly Leu Lys Arg Lys Thr Pro Ala Leu Lys Met Ser Val Ser Lys Arg 180 185 Ala Arg Lys Ala Ser Ser Asp Leu Asp Gln Ala Ser Val Ser Pro Ser 195 200 205 Glu Glu Glu Asn Ser Glu Ser Ser Glu Ser Glu Lys Thr Ser Asp 215 220 Gln Asp Phe Thr Pro Glu Lys Lys Ala Ala Val Arg Ala Pro Arg Arg 225 230 235 Gly Pro Leu Gly Gly Arg Lys Lys Ala Pro Ser Ala Ser Asp Ser 250 255 245 Asp Ser Lys Ala Asp Ser Asp Gly Ala Lys Pro Glu Pro Val Ala Met 260 265 270 280 Asp Val Ser Val Lys Lys Pro Pro Arg Gly Arg Lys Pro Ala Glu Lys 290 295 300 Pro Leu Pro Lys Pro Arg Gly Arg Lys Pro Lys Pro Glu Arg Pro Pro 305 310 315 Ser Ser Ser Ser Asp 325 326

<210> 2487 <211> 73 <212> PRT <213> Homo sapiens

<210> 2488 <211> 555 <212> PRT <213> Homo sapiens

<400> 2488

Thr Arg Ser Val Gly Val Asn Thr Cys Glu Val Gly Val Val Thr Glu Pro Glu Cys Leu Gly Pro Cys Glu Pro Gly Thr Ser Val Asn Leu Glu Gly Ile Val Trp His Glu Thr Glu Glu Gly Val Leu Val Val Asn Val Thr Trp Arg Asn Lys Thr Tyr Val Gly Thr Leu Leu Asp Cys Thr Lys His Asp Trp Ala Pro Pro Arg Phe Cys Glu Ser Pro Thr Ser Asp Leu Glu Met Arg Gly Gly Arg Gly Lys Arg Ala Arg Ser Ala Ala Ala Ala Pro Gly Ser Glu Ala Ser Phe Thr Glu Ser Arg Gly Leu Gln Asn Lys Asn Arg Gly Gly Ala Asn Gly Lys Gly Arg Arg Gly Ser Leu Asn Ala Ser Gly Arg Arg Thr Pro Pro Asn Cys Ala Ala Glu Asp Ile Lys Ala Ser Pro Ser Ser Thr Asn Lys Arg Lys Asn Lys Pro Pro Met Glu Leu Asp Leu Asn Ser Ser Ser Glu Asp Asn Lys Pro Gly Lys Arg Val Arg Thr Asn Ser Arg Ser Thr Pro Thr Thr Pro Gln Gly Lys Pro 1.90 Glu Thr Thr Phe Leu Asp Gln Gly Cys Ser Ser Pro Val Leu Ile Asp Cys Pro His Pro Asn Cys Asn Lys Lys Tyr Lys His Ile Asn Gly Leu Arg Tyr His Gln Ala His Ala His Leu Asp Pro Glu Asn Lys Leu Glu Phe Glu Pro Asp Ser Glu Asp Lys Ile Ser Asp Cys Glu Glu Gly Leu Ser Asn Val Ala Leu Glu Cys Ser Glu Pro Ser Thr Ser Val Ser Ala Tyr Asp Gln Leu Lys Ala Pro Ala Ser Pro Gly Ala Gly Asn Pro Pro Gly Thr Pro Lys Gly Lys Arg Glu Leu Met Ser Asn Gly Pro Gly Ser Ile Ile Gly Ala Lys Ala Gly Lys Asn Ser Gly Lys Lys Gly Leu Asn Asn Glu Leu Asn Asn Leu Pro Val Ile Ser Asn Met Thr Ala Ala Leu Asp Ser Cys Ser Ala Ala Asp Gly Ser Leu Ala Ala Glu Met Pro Lys Leu Glu Ala Glu Gly Leu Ile Asp Lys Lys Asn Leu Gly Asp Lys Glu Lys Gly Lys Lys Ala Asn Asn Cys Lys Thr Asp Lys Asn Pro Ser Lys Leu Lys Ser Ala Arg Pro Ile Ala Pro Ala Pro Ala Pro Thr Pro Pro Gln Leu Ile Ala Ile Pro Thr Ala Thr Phe Thr Thr Thr Thr Gly Thr Ile Pro Gly Leu Pro Ser Leu Thr Thr Thr Val Val Gln Ala Thr Pro Lys Ser Pro Pro Leu Lys Pro Ile Gln Pro Lys Pro Thr Ile Met Gly Glu Pro Ile Thr Val Asn Pro Ala Leu Val Ser Leu Lys Asp Lys Lys Lys Glu Lys Arg Lys Leu Lys Asp Lys Glu Gly Lys Glu Thr Gly Ser Pro Lys Met Asp Ala Lys Leu Gly Lys Leu Glu Asp Ser Lys Gly Ala Ser Lys Asp Leu Pro Gly His Phe Leu Lys Asp His Leu 

<210> 2489 <211> 80 <212> PRT <213> Homo sapiens

<210> 2490 <211> 27 <212> PRT <213> Homo sapiens

<210> 2491 <211> 179 <212> PRT <213> Homo sapiens

<400> 2491

Phe Val Glu Ala Ala Val Lys Met Leu Gly Ser Leu Val Leu Arg Arg 10 Lys Ala Leu Ala Pro Arg Leu Leu Leu Arg Leu Leu Arg Ser Pro Thr 25 20 Leu Arg Gly His Gly Gly Ala Ser Gly Arg Asn Val Thr Thr Gly Ser 35 40 Leu Gly Glu Pro Gln Trp Leu Arg Val Ala Thr Gly Gly Arg Pro Gly Thr Ser Pro Ala Leu Phe Ser Gly Arg Gly Ala Ala Thr Gly Gly Arg 70 75 Gln Gly Gly Arg Phe Asp Thr Lys Cys Leu Ala Ala Ala Thr Trp Gly 85 90 Arg Leu Pro Gly Pro Glu Glu Thr Leu Pro Gly Gln Asp Ser Trp Asn 100 105

, Gly Val Pro Ser Arg Ala Gly Leu Gly Met Trp Pro Trp Ala Ala Ala 115 120 125 Leu Val Val His Cys Tyr Ser Lys Ser Pro Ser Asn Lys Asp Ala Ala 130 135 140 Leu Leu Glu Ala Ala Arg Ala Gln Asn Met Gln Glu Val Ser Arg Asn 150 155 Arg Cys Ala Leu Leu His Ser Ala Ala Val Gln Glu Tyr Gly Tyr Gly 165 170 Asn 177

> <210> 2492 <211> 104 <212> PRT <213> Homo sapiens

<400> 2492 His Leu Cys Phe Trp Phe Phe Val Gly Leu Phe Leu Pro Glu Gln Gln 10 Ile Met Leu Phe Ala Thr Leu Leu Arg Met Ala Gln Gly Cys Asp Phe 25 · 20 30 Ala Leu Gly Asn Asp Phe Leu Asn Ile Thr Thr Lys Ala Gln Ala Thr 35 . 40 Lys Glu Lys Leu Asp Lys Leu Asp Phe Ile Lys Ile Lys Thr Cys Cys 55 60 Thr Ser Met Asp Ala Ile Glu Lys Thr Glu Pro Leu Thr Lys Trp Thr 70 75 Lys Ala Phe Val Ser His Val Ser Tyr Lys Arg Leu Leu Phe Gly Ile 85 90 Cys Lys Glu Tyr Ser Arg Gln 100 103

<210> 2493 <211> 50 <212> PRT <213> Homo sapiens

<210> 2494 <211> 134 <212> PRT <213> Homo sapiens

.Thr Leu Pro Ala Asn Thr Thr Ser Ser Pro Val Thr Asp Cys Gly Pro 20 Ser Leu Gly Leu Ala Ala Gly Ile Pro Leu Leu Val Ala Thr Ala Leu 40 Leu Val Ala Leu Leu Phe Thr Leu Ile His Arg Arg Arg Ser Ser Ile . 55 60 Glu Ala Met Glu Glu Ser Asp Arg Pro Cys Glu Ile Ser Glu Ile Asp 70 Asp Asn Pro Lys Ile Ser Glu Asn Pro Arg Arg Ser Pro Thr His Glu 85 90 Lys Asn Thr Met Gly Ala Gln Glu Ala His Ile Tyr Val Lys Thr Val 100 105 Ala Gly Ser Glu Glu Pro Val His Asp Arg Tyr Arg Pro Thr Ile Glu 115 120 Met Glu Arg Arg Arg 130 133

<210> 2495 <211> 79 <212> PRT <213> Homo sapiens

<210> 2496 <211> 76 <212> PRT <213> Homo sapiens

<210> 2497 <211> 421 <212> PRT <213> Homo sapiens

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<400> 2497
Phe Arg Arg Gly Arg Gly Glu Glu Glu Lys Glu Glu Glu Glu Glu 1 5 15
Glu Glu Glu Gly Trp Val Asn Gly Met Glu Asn Ser His Pro Pro His
                             25
His His His Gln Gln Pro Pro Pro Gln Pro Gly Pro Ser Gly Glu Arg
                          40
Arg Asn His His Trp Arg Ser Tyr Lys Leu Met Ile Asp Pro Ala Leu
                      55
                                        60
Lys Lys Gly His His Lys Leu Tyr Arg Tyr Asp Gly Gln His Phe Ser
           70
Leu Ala Met Ser Ser Asn Arg Pro Val Glu Ile Val Glu Asp Pro Arg
                                 90
Val Val Gly Ile Trp Thr Lys Asn Lys Glu Leu Glu Leu Ser Val Pro
100 105 110
                          105
          100
Lys Phe Lys Ile Asp Glu Phe Tyr Val Asp Gln Val Pro Pro Lys Gln
      115 120
                                           125
Val Thr Phe Ala Lys Leu Asn Asp Asn Ile Arg Glu Asn Phe Leu Arg
                     135
Asp Met Cys Lys Lys Tyr Gly Glu Val Glu Glu Val Glu Ile Leu Tyr
                 150
                                     155
Asn Pro Lys Thr Lys Lys His Leu Gly Ile Ala Lys Val Val Phe Ala
            165
                                170
Thr Val Arg Gly Ala Lys Asp Ala Val Gln His Leu His Ser Thr Ser
180 185 190
Val Met Gly Asn Ile Ile His Val Glu Leu Asp Thr Lys Gly Glu Thr
195 200 205
Arg Met Arg Phe Tyr Glu Leu Leu Val Thr Gly Arg Tyr Thr Pro Gln
                     215
                                       220
Thr Leu Pro Val Gly Glu Leu Asp Ala Val Ser Pro Ile Val Asn Glu
                 230
                                   235
Thr Leu Gln Leu Ser Asp Ala Leu Lys Arg Leu Lys Asp Gly Gly Leu
                       250 . 255
            245
Ser Ala Gly Cys Gly Ser Gly Ser Ser Ser Val Thr Pro Asn Ser Gly
                    265
         260
                                   270
Gly Thr Pro Phe Ser Gln Asp Thr Ala Tyr Ser Ser Cys Arg Leu Asp
275 280 285
Thr Pro Asn Ser Tyr Gly Gln Gly Thr Pro Leu Thr Pro Arg Leu Gly
                      295
Thr Pro Phe Ser Gln Asp Ser Ser Tyr Ser Ser Arg Gln Pro Thr Pro
                 310
                                    315
Ser Tyr Leu Phe Ser Gln Asp Pro Ala Val Thr Phe Lys Ala Arg Arg
              325
                                 330
His Glu Ser Lys Phe Thr Asp Ala Tyr Asn Arg Arg His Glu His His
          340
                            345
Tyr Val His Asn Ser Pro Ala Val Thr Ala Val Ala Gly Ala Thr Ala
                                  365
     355 360
Ala Phe Arg Gly Ser Ser Asp Leu Pro Phe Gly Thr Val Gly Gly Thr
            375
                                         380
Gly Gly Ser Ser Gly Pro Pro Phe Lys Ala Gln Pro Gln Asp Ser Ala
                                    395
                390
Thr Phe Ala His Thr Pro Pro Pro Ala Gln Ala Thr Pro Ala Pro Gly
             405
                                410
Phe Arg
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<210> 2498 <211> 343 <212> PRT <213> Homo sapiens

<400> 2498 Ile Ala Ser Ile Gln Asn Ala Asp Thr Met Pro Gly Val Gly Leu Leu 10 Val Ser His Phe Ser Thr Leu Val Ser Arg Gln Arg Cys Pro Asn Tyr 20 Ala Asp Pro Gln Asn Leu Thr Asp Val Ser Ile Phe Leu Leu Glu 40 Val Ser Gly Asp Pro Glu Leu Gln Pro Val Leu Ala Gly Leu Phe Leu 55 Ser Met Cys Leu Val Thr Val Leu Gly Asn Leu Leu Ile Ile Leu Ala 70 75 Ile Ser Pro Asp Ser His Leu His Thr Pro Met Tyr Phe Phe Phe Ser 90 Asn Leu Ser Leu Pro Asp Val Gly Phe Thr Ser Thr Thr Val Pro Lys 110 100 105 Met Ile Val Asp Ile Gln Ser Arg Ser Arg Val Ile Ser Tyr Ala Gly 115 120 Cys Leu Thr Gln Lys Ser Leu Phe Ala Ile Phe Gly Gly Thr Glu Glu 135 140 Asn Met Leu Leu Ser Val Met Ala Tyr Asp Arg Phe Val Ala Ile Cys 150 155 His Pro Leu Tyr His Ser Ala Ile Met Asn Pro Cys Phe Cys Ala Phe 165 170 Leu Val Leu Leu Ser Phe Phe Phe Leu Ser Leu Leu Asp Ser Gln Leu 185 190 His Ser Trp Ile Val Leu Gln Phe Thr Ile Ile Lys Asn Val Glu Ile 195 200 Ser Asn Phe Val Cys Asp Pro Ser Gln Leu Leu Lys Phe Ala Cys Ser 210 215 220 Asp Ser Ile Ile Asn Ser Ile Phe Ile Tyr Phe His Lys Asp Pro Glu 230 235 Arg Gln Leu Val Leu Ala Gly Leu Phe Leu Ser Met Cys Leu Val Thr 250 Val Leu Gly Asn Leu Ile Ile Ile Leu Asp Val Ser Pro Asp Ser His 260 265 270 Leu Pro Thr Pro Met Tyr Phe Phe Leu Ser Asn Leu Ser Leu Pro Asp 275 280 285 Ile Gly Phe Thr Ser Thr Thr Val Pro Lys Met Ile Val Asp Ile Gln 295 300 Ser His Gly Arg Val Ile Phe Tyr Ala Gly Cys Leu Thr Gln Met Ser 310 315 Leu Phe Ala Ile Phe Gly Gly Met Glu Glu Arg His Ala Pro Glu Cys 325 335 Asp Gly Leu 339

<210> 2499 <211> 233 <212> PRT <213> Homo sapiens

Ser Thr Asn Ser Ile Ala Leu Thr Ser Tyr Thr Tyr Leu Thr Ile Phe 70 75 Asp Leu Phe Ser Leu Met Thr Cys Leu Ile Ser Tyr Trp Val Thr Leu 85 90 Arg Lys Pro Ser Pro Val Tyr Ser Phe Gly Phe Glu Arg Leu Glu Val 100 105 110 Leu Ala Val Phe Ala Ser Thr Val Leu Ala Gln Leu Gly Ala Leu Phe 120 115 125 Ile Leu Lys Glu Ser Ala Glu Arg Phe Leu Glu Gln Pro Glu Ile His 135 140 Thr Gly Arg Leu Leu Val Gly Thr Phe Val Ala Leu Cys Phe Asn Leu 150 155 Phe Thr Met Leu Ser Ile Arg Asn Lys Pro Phe Ala Tyr Val Ser Glu 165 170 175 Ala Ala Ser Thr Ser Trp Leu Gln Glu His Val Ala Asp Leu Ser Arg 185 180 Ser Leu Cys Gly Ile Ile Pro Gly Leu Ser Ser Ile Phe Leu Pro Arg 200 205 Met Asn Pro Phe Val Leu Ile Asp Leu Ala Gly Ala Phe Ala Leu Cys 210 215 220 Ile Thr Tyr Met Leu Ile Glu Ile 230 232

<210> 2500 <211> 35 <212> PRT <213> Homo sapiens

<400> 2500

Asp Arg Ser Thr Ser Val Thr Arg Ala Gly Val Gln Trp Cys Ser Leu 5 10 Gly Ser Leu Gln Pro Arg Thr Pro Gly Leu Leu Arg Ser Ser Cys Leu 25 Ser Leu Pro

35

<210> 2501 <211> 68 <212> PRT <213> Homo sapiens

<400> 2501 Val Ala Ile Lys Glu Leu Pro Val Leu Trp Lys Trp Ser Lys Pro Thr 5 10 Arg Thr Ala Lys Glu Pro Pro Gln Thr Gln Gln Arg Ala Gly Ser Lys 20 25 30 Thr Ala Ala Pro Pro Cys Gln Trp Ser Arg Met Ala Ser Glu Gly Pro 40 45 Asn Ile Pro Cys Pro Gly Ala Arg His Ser Asp Lys Gln Phe Leu Ile 55 Cys Thr Ile 65 67

<210> 2502 <211> 142 <212> PRT .

#### <213> Homo sapiens

<400> 2502 Lys Pro Ser Pro Leu Ile Thr Pro Pro Ala Val Val Leu Pro Pro Ser 10 Ala Val Leu Asn Leu Val Asn Thr Phe Ser Ser Phe Pro Gln Val Glu 20 25 Val Gln Gly Pro Leu Cys Gly Pro Arg Lys Gly Arg Leu Ala Val Thr 35 40 Ile Pro Phe Phe Gly Leu Ser Leu Pro Lys Tyr Met Asp His Arg Arg 55 Pro Pro Pro His Arg Glu Ile Phe Phe Val Phe Leu Ala Glu Thr Gly 75 70 Phe His Arg Ala Ser Gln Ala Gly Pro Asp Leu Pro Thr Ser Ser Ile 90 85 Pro Pro Thr Ser Ala Phe Pro Lys Cys Trp Glu Tyr Arg Ser Glu Pro 100 105 110 Gln Cys Leu Pro Gly Cys Leu Ser Phe Ser Gly Ile Leu Leu Asp Leu 115 120 125 Gly Thr Asn Val Ser Leu Arg Ala Ala 130 135 137

<210> 2503 <211> 133 <212> PRT <213> Homo sapiens

<400> 2503 His Pro His Arg Pro Arg Pro Gly Phe Arg Ser Pro Ala Arg Ser Ser 1 5 10 Arg Pro Cys Pro Val Leu Thr Ser Leu Leu Pro Pro Phe Pro Ser Pro 20 25 Ser Pro Pro Ala Asp Asp Leu Val Lys Ala Gly Arg Asp Arg Lys Asp 40 Pro Gln Val Arg Glu Arg Arg Leu Arg Pro Asn Pro Gly Arg Leu Gly 55 60 Gly Pro Arg Pro Arg Pro Ala Arg Ala Arg Ser Cys His Gln Pro Arg 65 70 75 80 Leu Thr Arg Val Cys Pro Arg Ser Pro Pro Pro Glu Ala Arg Ala Pro 85 90 95 Ala Pro Ala Ala Pro Ala Arg Gly Arg Gly Ala Pro Lys Arg Asn Arg 105 Pro Arg Thr Asp Thr Arg Ala Pro Arg Gly Ser Ser Ala Arg Pro Gly 120 Asn Ser 130

<210> 2504 <211> 35 <212> PRT <213> Homo sapiens

Pro Thr

<210> 2505 <211> 32 <212> PRT <213> Homo sapiens

<210> 2506 <211> 80 <212> PRT <213> Homo sapiens

<210> 2507 <211> 47 <212> PRT <213> Homo sapiens

<210> 2508 <211> 144 <212> PRT <213> Homo sapiens

<400> 2508

Gln Glu Leu Lys Gln Gly Pro Asn Pro Leu Ala Pro Ser Pro Ser Ala 10 Pro Ser Thr Ser Ala Gly Leu Gly Asp Cys Asn His Arg Val Asp Leu 25 Ser Lys Thr Phe Ser Val Ser Ser Ala Leu Ala Met Leu Gln Glu Arg 40 Arg Cys Leu Tyr Val Val Leu Thr Asp Ser Arg Cys Phe Leu Val Cys 50 55 Met Cys Phe Leu Thr Phe Ile Gln Ala Leu Met Val Ser Gly Tyr Leu 70 Ser Ser Val Ile Thr Thr Ile Glu Arg Arg Tyr Ser Leu Lys Ser Ser. 85 90 Glu Ser Gly Leu Leu Val Ser Cys Phe Asp Ile Gly Asn Leu Val Val 100 105 110 Val Val Phe Val Ser Tyr Phe Arg Gly Arg Arg Arg Pro Arg Val 120 125 Ala Ala Val Gly Gly Leu Leu Asp Leu Glu Gly Gly Glu Met Ile 130 135

<210> 2509 <211> 92 <212> PRT <213> Homo sapiens

<400> 2509 Lys Gly Asn Gln Val Asn Gly Asn Gly Asn Gln Leu Lys Arg Lys His 5 10 Glu Ser Met Cys Pro Val Ser Leu Thr Gln Asn Thr Val Arg Leu Met 20 25 Glu Ala Gly Leu Pro Gln Lys Gln Ala Glu Arg Ala Asp Glu Leu Phe 35 40 Glu Ala Gly Leu Val Ile Tyr Val Lys Leu Asp Glu Arg Val Leu Asn 55 Ala Leu Tyr Ser Ser Val Gly Leu Gln Trp Phe Lys Glu Ser Asp Leu 70 75 Ser His Leu Arg Leu Leu Glu Ile Ser Phe Arg 85 90 91

<210> 2510 <211> 145 <212> PRT <213> Homo sapiens

<400> 2510 Phe Val Gly Arg Pro Arg Gly Leu Ser Asp Arg Leu Glu Asp Leu Phe 5 10 Leu Ala Gly Phe Arg Val Gly Glu Arg Leu Arg Thr Ala Ala Met Lys 25 Arg Tyr Val Arg Ile Leu Leu Leu Gly Glu Gly Ala Glu His Val Ala Asp Pro Val Pro Gly Gly Arg Gly Val Pro Arg Gly Glu Ala Asp His 55 Thr Asp Gln Glu Leu Arg Glu Glu Ile His Lys Ala Asn Val Glu Arg Val Val His Asp Val Ser Gln Glu Ala Thr Ile Glu Lys Ile Arg Thr 85 90 Lys Trp Ile Pro Leu Val Arg Trp Gly Asp His Ala Glu Gly Pro Val 100 105

Gly Ile Lys Ser Tyr Leu Pro Ser Gly Arg Ser Met Glu Ala Glu Leu 115 120 125

Pro Ile Met Ser Gln Leu Thr Glu Ile Glu Thr Cys Val Glu Cys 130 135 140 143

<210> 2511 <211> 131 <212> PRT <213> Homo sapiens

<400> 2511 Asn Ser Arg Val Asp Asp Phe Val Ala Pro Gly Leu Ser Glu Ala Gly 1 5 10 Lys Leu Leu Gly Leu Glu Phe Pro Glu Arg Gln Arg Leu Ala Ala Ala ` 20 25 Val Gly Cys Ser Pro Met Ser Gly Val Ile Ser Met Ser Ala Pro Phe 40 Phe Leu Gly Lys Ile Ile Asp Ala Ile Tyr Thr Asn Pro Thr Val Asp 55 60 Tyr Ser Asp Asn Leu Thr Arg Leu Cys Leu Gly Leu Ser Gly Val Phe **7**5 70 Leu Cys Gly Ala Ala Ala Asn Ala Ile Arg Val Tyr Leu Met Gln Thr 85 90 95 85 90 Ser Arg Gln Arg Val Val Lys Arg Leu Arg Thr Ser Leu Phe Ser Ser 100 105 110 Ile Leu Gly Gln Glu Val Ala Phe Ser Asp Lys Ala Gly Thr Gly Glu 120 125 Leu Ile 130

<210> 2512 <211> 252 <212> PRT <213> Homo sapiens

(213) Homo Baprens

<400> 2512 Gln Gly Arg Phe Arg Ala Phe Cys Trp Gln Arg Asp Phe Leu Gln Pro 10 Pro Gly Met Arg Leu Ser Ala Leu Leu Ala Leu Ala Ser Lys Val Thr 20 25 Leu Pro Pro His Tyr Arg Tyr Gly Met Ser Pro Pro Gly Ser Val Ala 45 40 Asp Lys Arg Lys Asn Pro Pro Trp Ile Arg Arg Arg Pro Val Val Val 55 Glu Pro Ile Ser Asp Glu Asp Trp Tyr Leu Phe Cys Gly Asp Thr Val 70 . 75 Glu Ile Leu Glú Gly Lys Asp Ala Gly Lys Gln Gly Lys Val Val Gln 8.5 90 Val Ile Arg Gln Arg Asn Trp Val Val Val Gly Gly Leu Asn Thr His 105 100 Tyr Arg Tyr Ile Gly Lys Thr Met Asp Tyr Arg Gly Thr Met Ile Pro 125 120 Ser Glu Ala Pro Leu Leu His Arg Gln Val Lys Leu Val Asp Pro Met 135 140 Asp Arg Lys Pro Thr Glu Ile Glu Trp Arg Phe Thr Glu Ala Gly Glu 155 150 Arg Val Arg Val Ser Thr Arg Ser Gly Arg Ile Ile Pro Lys Pro Glu 170

<210> 2513 <211> 119 <212> PRT <213> Homo sapiens

<400> 2513 Asp Ser Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Ala Ile Ser 5 10 Ala His Cys Asn Leu Thr Pro Pro Gly Phe Thr Pro Phe Ser Cys Leu Ser Leu Pro Ser Ser Trp Ala Tyr Arg Cys Ala Ser Pro His Pro Asp 40 Asn Phe Phe Val Phe Leu Val Glu Ser Gly Phe His His Val Gly Gln 55 60 Ala Gly Leu Lys Leu Leu Ile Ser Ser Asp Pro Pro Thr Ser Ala Phe Pro Lys Cys Trp Asp Tyr Arg Arg Asp Ser Ser Ala Pro Ala Thr Phe 85 90 Ser Ser Tyr Gln Arg Asn Asn Pro Asp Leu Ile Leu Asn Asp Thr Ile 100 105 Met Pro Asn Ile Lys

<210> 2514 <211> 366 <212> PRT <213> Homo sapiens

115 117

<400> 2514 Ser Ser Phe Pro Thr Cys Met Arg Thr Val Phe His Ser Asn Thr Ser 10 Val Ser Ser Leu Leu His Arg Pro Gly His Val Thr Pro Gln Leu Thr Ile His Gly Gly Trp Arg His His Arg Asp His Thr Ala Ile Asp Glu 40 Trp Asp Phe Asn Pro Ser Lys Phe Leu Ile Tyr Thr Cys Leu Leu Leu 55 60 Phe Ser Val Leu Leu Pro Leu Arg Leu Asp Gly Ile Ile Gln Trp Ser 75 70 Tyr Trp Ala Val Phe Ala Pro Ile Trp Leu Trp Lys Leu Leu Val Val Ala Gly Ala Ser Val Gly Ala Gly Val Trp Ala Arg Asn Pro Arg Tyr 105 100 Arg Thr Glu Gly Glu Ala Cys Val Glu Phe Lys Ala Met Leu Ile Ala 120 125 Val Gly Ile His Leu Leu Leu Leu Met Phe Glu Val Leu Val Cys Asp

Arg Val Glu Arg Gly Thr His Phe Trp Leu Leu Val Phe Met Pro Leu 150 155 Phe Phe Val Ser Pro Val Ser Val Ala Ala Cys Val Trp Gly Phe Arg 165 170 His Asp Arg Ser Leu Glu Leu Glu Ile Leu Cys Ser Val Asn Ile Leu 180 185 190 Gln Phe Ile Phe Ile Ala Leu Lys Leu Asp Arg Ile Ile His Trp Pro 200 205 Trp Leu Val Val Phe Val Pro Leu Trp Ile Leu Met Ser Phe Leu Cys 215 220 Leu Val Val Leu Tyr Tyr Ile Val Trp Ser Leu Leu Phe Leu Arg Ser 225 230 240 Leu Asp Val Val Ala Glu Gln Arg Arg Thr His Val Thr Met Ala Ile 245 250 Ser Trp Ile Thr Ile Val Val Pro Leu Leu Thr Phe Glu Val Leu Leu 260 265 270Val His Arg Leu Asp Gly His Asn Thr Phe Ser Tyr Val Ser Ile Phe 275 280 285 Val Pro Leu Trp Leu Ser Leu Leu Thr Leu Met Ala Thr Thr Phe Arg 295 300 Arg Lys Gly Gly Asn His Trp Trp Phe Ala Ile Arg Arg Asp Phe Cys 310 315 Gln Asp Gln Leu Pro Gln Pro Thr Gly Lys Pro Pro Pro Pro Pro Leu 325 330 Thr Asp His His Gly Glu Lys Ala Leu Pro Leu Gln Asn Lys Asp Arg 345 350 Gly Ser Trp Pro Ala Ser Arg Gly Ser Pro Arg Leu Leu 360

<210> 2515 <211> 148 <212> PRT <213> Homo sapiens

<400> 2515 Asp Val Ser Ile Gly Pro Pro Leu Leu Arg Arg Pro Cys Ser Gly Arg 1 5 10 15 Glu Gln Thr Arg Ser Leu Ser Phe Pro Ser Asp Pro Glu Ser Ser Phe 25 Ser Pro Val Pro Glu Gly Val Arg Leu Ala Asp Gly Pro Gly His Cys 35 40 Lys Gly Arg Val Glu Val Lys His Gln Asn Gln Trp Tyr Thr Val Cys 55 Gln Thr Gly Trp Ser Leu Arg Ala Ala Lys Val Val Cys Arg Gln Leu 75 Arg Cys Gly Arg Ala Val Leu Thr Gln Lys Arg Cys Thr Lys His Ala 85 90 95 Tyr Gly Arg Lys Pro Ile Trp Leu Ser Gln Met Ala Cys Ser Gly Pro 100 ' 105 110 Glu Pro Thr Leu His Asp Cys Pro Phe Arg Pro Leu Gly Glu Asp Thr 115 120 125 Leu Phe His Val Glu Tyr Thr Ser Val His Gly Arg Glu Arg Leu Ser 130 135 Ala Lys Asp 145 147

<210> 2516 <211> 63 <212> PRT

## <213> Homo sapiens

<210> 2517 <211> 131 <212> PRT <213> Homo sapiens

<400> 2517 Ala Val Leu Thr Pro Cys Leu Ser Pro Cys Ser Pro Ser Arg Ile Pro 10 Arg Pro Ser Arg Pro Tyr Pro Gly Arg Arg Ser Leu Ser His Thr Pro 25 Pro Pro Arg Pro Leu Ile Leu Tyr Ala Pro Ala Pro Arg Pro Ala Gly
35 40 45 Thr Ala Phe Ile Pro His Ser His Pro Pro Pro Pro Asp Leu Leu Arg 50 60 55 60 Pro Thr Ala Thr Pro Ala Thr Pro Cys Pro Ser Leu Pro Pro Pro Pro 65 70 75 80 Arg Pro Leu His Pro Thr Gln Pro Ser Thr Ala Leu Leu Pro Asp Pro 90 95 85 Pro Pro Trp Pro Leu Pro Phe Pro Pro Pro Ser Ser Arg Pro Pro Arg 105 100 Pro Asp Cys Ser Thr Ser Tyr Ser Pro Thr Phe Pro Pro Pro Thr 120 125 127

<210> 2518 <211> 168 <212> PRT <213> Homo sapiens

<400> 2518 Met Met Leu Ser Glu Glu Thr Ser Ala Val Arg Pro Gln Lys Gln Thr 10 Arg Phe Asn Gly Ala Lys Leu Val Trp Met Leu Lys Gly Ser Pro Ile 20 25 30 Thr Val Thr Ser Ala Val Ile Ile Val Leu Met Leu Leu Met Met Ile 40 Phe Ser Pro Trp Leu Ala Thr His Asp Pro Asn Ala Ile Asp Leu Thr Ala Arg Leu Leu Pro Pro Ser Ala Ala His Trp Phe Gly Thr Asp Glu 75 70 Val Gly Arg Asp Leu Phe Ser Arg Val Leu Val Gly Ser Gln Gln Ser 90 Ile Leu Ala Gly Leu Val Val Val Ala Thr Thr Gly Met Ile Gly Ser 100 105 Pro Leu Glu Cys Leu Phe Gly Glu Leu Gly Gly Arg Ala Asp Ala Ile

 Phe Met Arg Val
 Met Asp Ile Met Arg Ser Ile Pro Ser Leu Val
 Leu 130

 130
 135
 140

 Thr Met Glu Lys
 Thr Ala Ala Leu Gly Pro Ser Leu Phe Asn Ala Met 145
 150

 Gln Ala Ser Ser Glu His 165
 166

<210> 2519 <211> 123 <212> PRT <213> Homo sapiens

<400> 2519 Gly Asn Gly Arg Val Ala Pro Arg Asp Pro Gly Ala Val Ala Ser Ala 10 Glu Pro Gly Leu Thr Thr His Asp Ser Gly Val Asn Pro Asn Asn Ser 20 25 Ala Arg Arg Met Glu Ala Met Ala Ser Gly Ser Asn Trp Leu Ser Gly 35 40 Val Asn Val Val Leu Val Met Ala Tyr Trp Ser Leu Val Phe Val Leu 50 55 60 Leu Phe Ile Phe Ala Lys Arg Gln Ile Met Arg Phe Ala Met Lys Ser 65 70 75 80 75 Leu Arg Gly Pro His Gly Pro Val Gly His Asn Ala Pro Lys Asp Leu 85 90 Lys Glu Glu Ile Asp Ile Leu Leu Ser Arg Val His Asn Ile Lys Tyr 100 105 Glu Pro His Leu Leu Ala Asp Asp Asp Ala 115 120 122

<210> 2520 <211> 336 <212> PRT <213> Homo sapiens

165

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Met Asn Ile Gln Pro Met Leu Pro Gly Gly Glu Ser Ala Pro Lys Glu

Leu Arg Gly Ala Val Ala Met Ser Ser Ala Ile Phe Thr Ala Leu Gly 185 180 Ile Val Met Gly Gln Val Val Gly Leu Ser Thr Thr Ala Ala Thr Gly 200 195 Leu Arg Gly Leu Ala Gly Glu Leu Glu Glu Leu Glu Glu Glu Arg Ala 215 220 Ala Cys Gln Gly Cys Arg Ala Arg Arg Pro Trp Glu Leu Phe Gln His 225 230 230 235 Arg Ala Leu Arg Arg Gln Val Thr Ser Leu Val Val Leu Gly Ser Ala 245 250 Met Glu Leu Cys Gly Asn Asp Ser Val Tyr Ala Tyr Ala Ser Ser Val 260 265 270 Phe Arg Lys Ala Gly Val Pro Glu Ala Lys Ile Gln Tyr Ala Ile Ile 285 275 280 Gly Thr Gly Ser Cys Glu Leu Leu Thr Ala Val Val Ser Val Ser Leu 300 295 Glu Gly Ala Leu Pro Pro Pro Ala Leu Trp Gly Gly Thr Pro Arg Ser 310 315 Phe Ala Leu Asn Gln Phe Thr Leu Gln Lys Lys Lys 325 330

<210> 2521 <211> 138 <212> PRT <213> Homo sapiens

<400> 2521 Arg Gly Pro Ala Ser Ala Gln Glu Asp Glu Arg Ala Arg Thr Ala Pro Leu Glu Arg Val Arg Ala Arg Gly Arg Met Thr Thr Ser Ser Ala Leu . 20 25 Phe Pro Ser Leu Leu Pro Cys Ser Trp Ser Thr Ser Asn Lys Tyr Leu 45 40 Ala Glu Phe Arg Ala Gly Lys Met Ser Leu Lys Gly Thr Thr Glu Thr 55 60 Pro Asp Lys Arg Lys Gly Leu Ala Tyr Ile Gln Gln Thr Asp Asp Ser 70 Leu Ile His Phe Cys Trp Lys Asp Arg Thr Ser Gly Asn Val Glu Asp 90 85 Asp Leu Ile Ile Phe Pro Asp Asp Cys Glu Phe Lys Arg Leu Pro Gln 100 105 110 Cys Pro Asn Gly Arg Val Tyr Val Leu Lys Phe Lys Ala Gly Ser Lys 120 Arg Leu Phe Phe Trp Met Gln Glu Pro 130 135 137

<210> 2522 <211> 112 <212> PRT <213> Homo sapiens

' <210> 2523
 <211> 114
 <212> PRT
 <213> Homo sapiens

<221> misc_feature
 <222> (1)...(114)
 <223> Xaa = any amino acid or nothing

<400> 2523 Leu Cys Gln Cys Ile Val Pro Gly Gln Gln Lys Glu Thr Phe Ser Leu 10 Asn Pro Ser Ser Ala Thr Val Arg Phe Tyr Leu Xaa Leu Ser Leu Gln 25 Gln Arg Lys Glu Asp Gln Xaa Ile Ile Leu Xaa Tyr His Leu Asn Lys 35 40 Asp Cys Leu His Ile Phe Met Ser Ala Ile Thr Leu Tyr Met Lys Ile 55 60 Xaa Lys Ile Phe Val Leu Phe Asp Phe Asn Ile Met Phe Glu Thr Pro 70 75 Phe Tyr Ile Ile Xaa Phe Ile Phe Leu Phe Ser Gln Asn Leu Lys Arg 85 90 Ile Arg Gln Val Ile Arg Pro Pro Ile Ser Phe Ser Lys Ile Asn Asn 105 Gly Pro 114

<210> 2524 <211> 99 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(99) <223> Xaa = any amino acid or nothing

<400> 2524 Glu Arg Leu Glu Ile Gly Arg Leu Gly Gly Glu Arg Gly Ser Gly Pro 10 Ala Ser Cys Leu Arg Val Ile Asp Val Ser Gly Met Trp Asp Gln Arg 20 25 Leu Val Lys Leu Ala Leu Leu Gln Leu Leu Arg Ala Phe Tyr Gly Ile 40 45 Lys Val Lys Gly Val Arg Val His Arg Asp Cys Gly Thr Phe Glu Ser 55 60 Ser Ser Thr Leu Ile Arg Val Ser Xaa Phe Gly Val Pro Cys Asn Ala 70 75 Leu Ala His Phe Gly Val Thr His Phe Xaa Tyr Ile Leu Asp Phe Leu 90

Gly Met Leu

<210> 2525 <211> 110 <212> PRT

<213> Homo sapiens

<221> misc_feature <222> (1)...(110)

<223> Xaa = any amino acid or nothing

<400> 2525

His Glu Ser Ser Arg Ala Asp Arg Asp Lys Met Asp Thr Arg Gly Ser 10 Thr Tyr Thr Asp Ala Asp Pro Val Asn Lys Ser Gly Gly Thr Ala Lys 20 25 Met Asn Lys Trp Ser Lys Gly Lys Val Arg Asp Lys Leu Asn Asn Leu 35 40 Val Leu Phe Asp Thr Ala Thr Tyr Asp Lys Leu Cys Lys Glu Val Pro 55 60 Asn Tyr Lys Leu Ile Thr Leu Ala Val Val Ser Glu Arg Leu Lys Ile Pro Gly Ser Leu Ala Arg Ala Ala Leu His Glu Leu Leu Ser Arg Gly 85 90 Leu Ile Xaa Leu Val Ile Gln His Ile Ala Gln Val Ile Tyr 105

<210> 2526

<211> 99

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(99)

<223> Xaa = any amino acid or nothing

<400> 2526

Leu Asn Leu

99

<210> 2527

<211> 133

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(133)

<223> Xaa = any amino acid or nothing

<400> 2527 Cys Asn Phe Leu Arg Ser Ser Arg Ile Arg Val His Ser Thr Pro Ala 1 10 Ala Ser Thr Met Pro Pro Lys Val Asp Pro Asn Glu Ile Lys Val Val 25 · 30 20 Tyr Leu Arg Cys Thr Gly Gly Glu Val Arg Ala Thr Ser Ala Leu Ala 35 40 45 Pro Lys Ile Gly Pro Leu Gly Leu Ser Ser Ile Lys Val Gly Val Asp 55 Phe Val Xaa Ala Thr Gly Asp Trp Asn Val Leu Ile Ile Ser Val Ile 70 75 Leu Thr Ile Arg Ile Leu Leu Ser His Ile Phe Val Val Pro Pro Phe 85 90 Phe Cys Phe Asp His Leu Ile Ala Phe Trp Asp Leu Gln Ser Leu Ile 100 105 110 Phe Leu His Val Ile Phe Ser Leu Phe Ile Thr Leu Leu Leu Phe Cys 115 120 Phe Phe Ser Ile Phe 130 133

<210> 2528 <211> 95 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(95) <223> Xaa = any amino acid or nothing

<400> 2528 Thr Pro Leu Phe Asp Leu Trp Pro Arg Val Val Leu Ser Trp Leu Glu 10 Thr Val Leu Thr Ser Leu Arg Thr Arg Arg Ala Ala Ser Gly Pro Pro 20 25 30 Ala Cys Arg Ile Met Pro Thr Thr Val Asp Asp Val Leu Glu His Gly 35 40 45 Gly Glu Val His Phe Leu Gln Lys Gln Met Leu Tyr Leu Leu Ala Leu 55 60 Ile Xaa Asp Thr Phe Ala Pro Ile Tyr Val Gly Ile Val Phe Leu Gly 70 75 Phe Thr Pro Asp His Arg Cys Arg Ser Pro Gly Val Ala Glu Leu 85 90

<210> 2529
<211> 68
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1) ... (68)
<223> Xaa = any amino acid or nothing

<400> 2529 Leu Ser Ser Ala Gly Thr Lys Met Asn Leu Asn Xaa Lys Asn Tyr Trp 15 10 Pro Gly Ala Ser Ala His Ala Cys Asn Pro Ser Thr Leu Gly Gly Gln 20 25 30 Ser Arg Cys Ile Thr Arg Ser Gly Asp Arg Asp His Pro Gly Xaa His 35 40 Gly Glu Thr Pro Ser Val Leu Lys Ile Gln Lys Ile Ser Arg Ala Trp 50 55 Trp Arg Ala Pro 68 -

<210> 2530 <211> 66 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(66)

<223> Xaa = any amino acid or nothing

<210> 2531 <211> 90 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(90) <223> Xaa = any amino acid or nothing

<400> 2531 Pro Ile Ala Ala Ser Leu Arg Met Tyr Asn Leu Gln Pro Tyr Thr Glu 10 Glu Asn Leu Ile Cys Thr Ala Phe Ala Thr Met Val Glu Thr Val Pro 25 20 Ile Ala Arg Thr Ile Leu Asp Arg Leu Thr Gly Ile Pro His Gly Tyr 35 40 45 Cys Phe Val Glu Xaa Ala Asp Trp Ala Thr Ala Asp Lys Cys Val His 55 Ile Tyr Asn Gly Lys Pro Leu Pro Gly Ala Thr Pro Leu Leu Ser Leu 70 Gln Leu His Gln Leu Ala His Leu Gly Ser 85

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<210> 2532
    <211> 78
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1) ... (78)
    <223> Xaa = any amino acid or nothing
    <400> 2532
Val Asp Lys Cys Ser Ser Lys Ser Ile Val Leu Ser Glu Tyr Cys Pro
                                   10
His Cys Met Cys Ser Leu Ser Thr Asp Pro Lys Pro Phe Gly Gln Leu
                              25
            20
Ser Met Ile Leu Lys Xaa Met Gly Ala Gly Asp Glu Lys Ile Ser Ala
       35
                        40
                                           45
Met Gly Lys Ala Arg Val Asp His Arg Glu Leu Tyr Leu Gly Leu Leu
                      55
Tyr Pro Thr Glu Asp Tyr Lys Leu Thr Phe Arg Ala Arg His
    <210> 2533
    <211> 126
    <212> PRT
  <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(126)
    <223> Xaa = any amino acid or nothing
    <400> 2533
Leu Lys Asp Phe Gln Pro Trp Ala Leu His Asp Trp Pro Leu Phe Cys
               5
                                  10
Cys Cys Thr Phe Leu Leu Phe Leu Val Leu Glu Cys Phe Thr Arg Lys
           20
                               25
Gly Cys Ser Gly Trp Ala Pro Trp Leu Ser Leu Gln Cys Gln His Phe
       35
                           40
                                              45
Gly Arg Pro Arg Trp Ala Asp His Leu Arg Ser Gly Val Arg Asp Gln
                       55
Pro Gly Gln Tyr Ser Lys Thr Thr Phe Leu Pro Lys Ile Gln Lys Leu
                   70
                                      75
Ala Gly His Ser Gly Ala His Leu Kaa Ser Kaa Leu Leu Glu Arg Met
               85
                                  90
                                                     95
Arg Trp Lys Asn Arg Leu Asn Pro Gly Gly Arg Ser Cys Ser Glu Pro
          100
                            105
Arg Trp His His Cys Thr Pro Gly Trp Ala Thr Glu Arg Gly
                           120
    <210> 2534
    <211> 88
    <212> PRT
    <213> Homo sapiens
    <221> misc_feature
    <222> (1)...(88)
    <223> Xaa = any amino acid or nothing
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<210> 2535

<211> 117

<212> PRT

<213> Homo sapiens

<221> misc feature

<222> (1)...(117)

<223> Xaa = any amino acid or nothing

<400> 2535

Arg Cys Pro Met Trp Gln Gly Gln Ala Ser Arg Met Asp Pro Ala Lys 10 15 Ala Lys Asp Arg Glu Ala Ser Thr Cys Cys Ser Leu Ala Trp Trp 25 30 Gly Trp Glu Cys Trp Val Arg Ala Leu Lys Leu Ser Ser Gly Pro Ala 40 Gly Pro Leu Ala Cys Trp Val Ala Lys Lys Lys Ser Leu Ser Leu Ser 55 60 Gly Pro Val Tyr Pro Ser Glu Lys Gly Ala Gly Leu Tyr Val Phe Xaa 75 70 Asp Arg Val Ser Leu Cys His Pro Gly Trp Ser Ala Val Val Gln Phe . 90 Trp Leu Thr Ala Ala Ser Asn Ser Cys Phe Ser Leu Leu Ser Ser Trp 105 100 Asp Tyr Arg Cys Ala 115 117

<210> 2536

<211> 59

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(59)

<223> Xaa = any amino acid or nothing

<400> 2536

Gln Pro Leu Trp Lys Ile Val Trp His Tyr Gln 50 55 59

<210> 2537 <211> 128 <212> PRT <213> Homo sapiens

<221> misc_feature <222> (1)...(128) <223> Xaa = any amino acid or nothing

<400> 2537 Glu Val Ala Pro Gly Pro Ser Gln Ile Leu Pro Arg Arg Val Thr Asp 1 5 10 15 Gly Gly Asp Arg Pro Gln Phe Ser Leu Pro Gly Pro Arg Leu Pro Gln 20 25 Ser Ser Arg Gly Ala Glu Pro Cys Leu Ser Asn Cys Ile His Ser Pro 40 Ala Pro Arg Lys Gln Arg Met Gly Asp Ser Asp Gln Xaa Ser Thr Pro 55 60 i Asn Pro Ala Ser Pro His Pro Glu Ala Pro Gln Glu Pro Trp Asp Ser 70 75 · 80 Ala Ser Gly Ser Val Gly Ser Phe Ser Leu Gly Arg Gly Ala Lys Ala 85 90 Ser Ser Xaa Val Pro Gly Lys Gly Arg Gly Pro Arg Gln Gly Ser Glu 100 105 110 Leu Leu Ala Glu Thr Ile Leu Glu Leu Phe Leu Ala Leu Ala Asn Ser . 120

<210> 2538
<211> 91
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(91)
<223> Xaa = any amino acid or nothing

<400> 2538 Thr Met Asp Lys Lys Asn Arg His Gly Asn Ser Leu Asp Met Ala Ser 5 10 Glu Ile His Met Thr Gly Pro Met Cys Leu Ile Glu Asn Thr Thr Gly 25 Arg Leu Met Ala Asn Pro Glu Ala Leu Lys Ile Leu Ser Ala Ile Thr 35 40 Gln Pro Met Val Glu Glu Ala Ile Ala Gly Leu Tyr Arg Ala Cys Xaa 55 Phe Tyr Leu Thr Asn Asn Leu Ala Gly Met Lys Lys Gly Leu Cys Leu 70 75 Gly Ser Thr Glu Gln Ala His Thr Ile Gly Ile 85 90 91

<210> 2539

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<211> 62
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(62)
<223> Xaa = any amino acid or nothing
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<210> 2540 <211> 125 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(125) <223> Xaa = any amino acid or nothing

<400> 2540 Val Thr Val Gly Leu Thr Leu Leu Leu Arg Gly Ala Pro Arg Phe Thr 1 5 10 Ala Gly Xaa Pro Pro Ser Gly Gly Gly Pro Pro Leu Ala Pro Leu Leu 20 25 Pro Arg Gln His Cys Thr Leu Gln Thr His Arg His Leu His Pro Glu 40 Ala Pro Val Lys Val Xaa Lys Thr Xaa Arg Leu Phe Pro Gly Leu Arg 55 60 Gly Ala Ser Ser Cys Arg Arg Arg Cys Asn Pro Val Leu Ala Ala 65 70 75 Arg Lys Ala Gly Ser Pro Arg Ser His Ser Thr Arg Glu Asn Cys Arg 85 90 Arg Ser Arg Cys Pro Asp Thr Ala His Arg Arg Arg Arg Gly Arg 100 105 Arg Arg Asn Pro Ser Cys Val Arg Ser Pro Arg Trp Arg 120 125

<210> 2541 <211> 137 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (137) <223> Xaa = any amino acid or nothing

<400> 2541
Leu Ala Asp Ala Leu Cys Leu Ser Ala Ala Ala Thr Gly Ala Val Arg
1 5 10 15

Pro Gly Ala Arg Ala Gln Pro Ser Thr Arg Arg Leu Ser Pro Ser Val Arg Val Cys Cys Arg Ala Ala Ala Ala Ser Asn Leu Leu Tyr Ser 35 40 45 Ser Cys Leu Gln Arg His Ser Glu Arg Ala Ser Glu Glu Gly Glu Arg 50 55 60 Gly Ser Leu Ser Ala Lys Cys Cys Ser Leu Val Leu Arg Gly Gly Cys 70 75 Ser Ser Ser Asn Ser His Ser Phe Arg Arg Ile Thr Xaa Glu Ile Met 85 90 Ala Ala Phe Val Leu Leu Ser Tyr Glu Gln Arg Pro Leu Lys Arg Pro 100 105 110 Arg Leu Gly Pro Pro Asp Val Tyr Pro Pro Asp Pro Lys Gln Lys Glu 115 120 Glu Glu Leu Thr Ala Val Asn Val Lys

<210> 2542 <211> 76 <212> PRT <213> Homo sapiens <221> misc_feature

<222> (1)...(76)
<223> Xaa = any amino acid or nothing

<210> 2543 <211> 62 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(62) <223> Xaa = any amino acid or nothing

70

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<210> 2544
<211> 125
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(125)
<223> Xaa = any amino acid or nothing
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<400> 2544 Pro Leu Gln Arg Ser Lys Cys Leu Thr Leu Arg Cys Leu Arg Ala Lys 10 Pro Trp Ala Trp Ser Gln Ser Pro Arg Ala Cys Ser Ser Ala Leu Leu 20 25 Lys Ser Ser Arg Ser Arg Ala Ser Ser Leu Asn Val Gln Cys Ile Leu 40 Gln Ser Asn Pro Gln Gly His Gln Arg Ile Xaa Lys Gln Lys Ala Ser 55 60 Ser Lys Gly Gln Gln Phe Arg Arg Xaa Lys Glu His Pro Phe Met Leu 70 75 Lys Thr Leu Asn Lys Leu Arg Ile Glu Gly Thr Xaa Leu Lys Ile Arg 90 Arg Ala Ile Tyr Asp Asn Pro Thr Ala Asn Ile Ile Val Glu Gly Gln 100 105 Lys Leu Glu Ala Phe Pro Leu Arg Thr Gly Thr Arg Gln 120

<210> 2545
<211> 209
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1) ... (209)
<223> Xaa = any amino acid or nothing

<400> 2545 Gly His Gly Ala Pro Ser Phe Gln Thr Gln Val Pro Arg Thr Pro Xaa 10 Ala Ser Trp Pro Val Val Pro Ala Ala Ser Glu Ser Ala Pro Ala Pro Ala Gly Gly Ala Ser Leu Pro Val Ala Ala Gly Ser Cys Ala Ala 40 Ala Pro His Thr Glu Pro Gly Ala Pro Gln His Leu Leu Asp Cys Pro 55 Cys Pro Leu Cys Leu Ala Arg Pro Pro Arg Arg Pro Leu Pro Asp Thr 75 Cys Tyr Gly Pro Gly Ser Gly Arg Ser Ala Ser Leu Ala Glu Pro Pro 90 85 Leu Pro Arg Cys Ser Cys Ala Pro Leu Arg Ser Ala Ser Ala Pro Gln 105 Val Ser Xaa Cys Val Xaa Ala Val Asn Leu Leu Pro His Asn Leu Xaa 120 Pro Leu His Leu Leu His Asp Xaa Glu Lys Ala Trp Gly Phe Leu 140 135 Phe Ser Ser Ala Ser His Cys Phe Gln Gly Gln Ile Cys Leu Leu Pro 150 155 Ala Pro Gly Ser Gly Pro Cys Gly Ala Thr Ala Arg Pro Ser Arg Gly

Gly Arg Ala Gly Gly Ser Arg Ala Arg Arg Pro Ile Pro Pro Gly Pro
180 185 190

Gly Thr Arg Arg Thr Pro Ser Gly Cys Gln Asn Pro Ala Ala Ser Gly
195 200 205

Gly
209

<210> 2546 <211> 80 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(80) <223> Xaa = any amino acid or nothing

<400> 2546 Arg Ser Pro Thr Ala Thr Pro Ala Pro His Ala Met Gly Pro Gly Ala 10 Pro Phe Ala Arg Gly Gly Arg Pro Leu Pro Leu Leu Gly Ala Met Ala 20 25 Glu Arg Val Ala Pro Gly Trp Asp Leu His Thr Pro Tyr Leu Pro Arg 35 40 45 Thr Asn Ser Arg Arg Thr Pro His Leu Xaa Xaa Glu Pro His Ala Gly 50 55 60 Tyr Ile Gly Ala Leu Phe Pro Met Ser Gly Gly Trp Pro Gly Gly Gln 65 70

<210> 2547
<211> 80
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(80)
<223> Xaa = any amino acid or nothing

<400> 2547 Ile Ala Trp Leu Ser Gly Leu Phe Phe Pro Ser Asn Gln Ala Asn Leu 5 10 Cys Phe Leu Cys Tyr Lys Leu Thr Ala Asp Ser Arg Tyr Arg Gly His 20 25 30 Ala Met Arg His Leu Thr Gly Asn Thr Ser Met Ala Ile Arg Phe Leu 40 Xaa Ala Asp Ser Arg Phe Gln Val Gln Arg Ala Arg Tyr Glu Ala Pro 55 60 Asn Trp Lys Tyr Lys Tyr Gly Tyr Xaa Ile Pro Val Asp Met Leu Cys 70 75

<210> 2548 <211> 68 <212> PRT

<213> Homo sapiens <221> misc_feature <222> (1)...(68) <223> Xaa = any amino acid or nothing <400> 2548 Lys Asn Lys Lys Thr Thr Lys Cys Leu Ser Ile Val Thr Leu Asn Ile Ser Gly Pro Asn Gln Xaa Asn Lys Arg His Arg Val Ala Glu Trp Ile . 20 25 Val Lys Gln Glu Pro Asn Ile Cys His Leu Xaa Glu Thr His Phe Pro 35 40 Phe Arg Asp Thr Tyr Arg Leu Lys Glu Arg Glu Gln Lys Lys Arg Lys Ser Ser Tyr Ser <210> 2549 <211> 53 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(53) <223> Xaa = any amino acid or nothing <400> 2549 Gly Gly Arg Phe Lys Glu Ser Lys Leu Thr Asn Ala Gly Trp Gln Arg 10 Asn Ser Phe Phe Ile Gly Pro Pro Lys Ser Ile Pro Trp Ala Ala Val 20 25 Xaa Gln Arg Gly Asp Gly Lys Asn Pro Gly Val Thr His Leu Asn Arg 35 Pro Val Gly Thr Xaa 50 53 <210> 2550 <211> 62 <212> PRT <213> Homo sapiens <221> misc feature <222> (1)...(62) <223> Xaa = any amino acid or nothing <400> 2550 Val Asn Ala Glu Lys Glu Phe Xaa Lys Ile Gln His Tyr Phe Met Thr 5

<210> 2551 <211> 196

<212> PRT <213> Homo sapiens <221> misc feature <222> (1)...(196) <223> Xaa = any amino acid or nothing <400> 2551 Ser Ser Val Val Glu Phe Pro Arg Gly Pro Arg Ser Ser Leu Pro Pro 1 5 10 15 Leu Asp Ser Thr Phe Pro Cys Gly Ser Ser Pro Asn Trp Thr Gly Gly 25 Cys Gly Ser Cys Pro Ser Gly Glu Kaa Leu Val Ser Pro Gly Ser Glu 35 40 Gln Arg Lys Lys Tyr Ser Asn Ser Asn Val Ile Met His Glu Thr Ser 55 60 Gln Tyr His Val Gln His Leu Ala Thr Phe Ile Met Asp Lys Ser Glu 70 75 Ala Ile Thr Ser Val Asp Asp Ala Ile Arg Lys Leu Val Gln Leu Ser 85 90 Ser Lys Glu Lys Ile Trp Thr Gln Glu Met Leu Leu Gln Val Asn Asp 100 105 110 Gln Ser Leu Arg Leu Leu Asp Ile Glu Ser Gln Glu Glu Leu Glu Asp 115 · 120 125 Phe Pro Leu Pro Thr Val Gln Arg Ser Gln Thr Val Leu Asn Gln Leu 135 Arg Tyr Pro Ser Val Leu Leu Leu Val Cys Gln Asp Ser Glu Gln Ser 150 155 Lys Pro Asp Val His Phe Phe His Cys Asp Glu Val Glu Ala Glu Leu 165 170 175 Val His Glu Tyr Met Glu Ser Ala Leu Thr Asp Cys Arg Leu Gly Lys 185 180 Ala Met Arg Pro 195 196 <210> 2552 <211> 142 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (142) <223> Xaa = any amino acid or nothing <400> 2552 Lys Tyr Gly Asn Glu Gly His Trp Ser Arg Gln Cys Pro Asn Pro Gly Lys Pro Ile Arg Pro Cys Pro Leu Cys Arg Gly Pro His Trp Lys Leu 20 25 Asp Cys Glu Arg Pro Pro Gln Gly Pro Leu Pro Ser Leu Pro Glu Leu 35 40 Ala Lys Thr Ser Tyr Ser Asp Leu Thr Gly Leu Ala Thr Glu Asp Xaa 55 Trp Gly Pro Gly Met Asp Ala Pro Ala Thr Thr Ile Ala Ser Ser Lys 70 75

90

Thr Arg Val Thr Leu Met Val Ala Gly Arg Pro Val Phe Phe Leu Ile

<210> 2553
<211> 74
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(74)
<223> Kaa = any amino acid or nothing

<210> 2554
<211> 111
<212> PRT

<213> Homo sapiens

<221> misc_feature
<222> (1) . . . (111)
<223> Xaa = any amino acid or nothing

<400> 2554 Glu Asp Lys Arg Leu Arg Leu Val Asp Gly Asp Ser Arg Cys Ala Gly Arg Val Xaa Ile Tyr His Asp Gly Phe Trp Gly Thr Ile Cys Asp Asp 20 25 Gly Trp Asp Leu Ser Asp Ala His Val Val Cys Gln Lys Leu Gly Cys 35 40 Gly Val Ala Phe Asn Ala Thr Val Ser Ala His Phe Gly Glu Gly Ser 55 Gly Pro Ile Trp Leu Asp Asp Leu Asn Cys Thr Gly Thr Glu Ser His 70 75 Leu Trp Gln Cys Pro Ser Arg Gly Trp Gly Gln His Asp Cys Arg His 90 85 Lys Glu Asp Ala Gly Val Ile Cys Ser Glu Phe Thr Ala Leu Arg

<210> 2555 <211> 120 <212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(120)

<223> Xaa = any amino acid or nothing

<400> 2555 Ala Arg Gly Ser Cys Pro Thr Arg Pro Arg Thr Ala Asn Gly Arg Met 10 Gly Glu Thr Lys Asp Ala Pro Gln Met Leu Val Thr Phe Lys Asp Val 25 Ala Val Thr Phe Phe Arg Glu Glu Trp Arg Gln Leu Val Leu Val His 35 40 45 Arg Thr Leu Tyr Arg Xaa Gly Met Leu Glu Thr Cys Gly Leu Leu Asp 55 Thr Leu Arg His Asn Val Pro Gln Pro Asp Val Val His Leu Leu Tyr 70 75 His Gly Thr Gln Leu Leu Ile Val Lys Arg Glu Val Ser His Ser Pro 85 90 Cys Ala Gly Asp Met Arg Glu Leu Phe Thr Arg Glu Ala Thr Leu Thr 100 105 110 Pro His Pro Tyr Asn Asn Gly Ala

<210> 2556
<211> 146
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(146)
<223> Xaa = any amino acid or nothing

<400> 2556 Thr Leu Gly Ala Val Leu Phe Ser Glu Val Ser Lys Glu Ser Ser Thr 5 10 Ser His Ser Gly Gly Gln Leu Gly Arg Gln Asn Arg His Pro Lys Leu 20 25 Ser Asn Phe Ile Thr Pro Ser Ser Pro Arg Leu Lys Pro Xaa Thr Ala 35 40 45 Ser Ser Gln Arg Asn Leu Gly Gln Ile Leu Asn Met Phe Leu Thr Ala 55 60 Val Asn Pro Gln Pro Leu Ser Thr Pro Ser Trp Gln Ile Glu Thr Lys 70 75 Tyr Ser Thr Lys Val Leu Thr Gly Asn Trp Met Glu Glu Arg Arg Lys 85 90 Gly Leu Pro Tyr Lys His Leu Ile Thr His His Gln Glu Pro Pro His 105 100 110 Arg Tyr Leu Ile Ser Thr Tyr Asp Asp His Tyr Asn Arg His Gly Tyr 115 120 125 Asn Pro Gly Leu Pro Pro Leu Arg Thr Trp Asn Gly Gln Lys Leu Leu 130 135 Trp Leu 145 146

<210> 2557 <211> 137 <212> PRT

# <213> Homo sapiens

<221> misc_feature

<222> (1)...(137)

<223> Xaa = any amino acid or nothing

<400> 2557

Leu Arg Ser Ser Pro Ala Ala Leu Leu Arg Ala Leu Cys Ile Thr Thr 1 5 10 15

Val Thr Gly Thr Ala Leu Ala Leu Arg Ser Arg Val Ala Thr Thr Asn 20 25 30

Pro Asp Gly Cys Arg Asn Val Leu Arg Pro Lys Tyr Tyr Arg Leu Cys
35
40

Asp Lys Ala Glu Ser Trp Gly Ile Ala Leu Glu Thr Val Pro Thr Gly 50 60

Val Ala Val Thr Ser Trp Ala Ile Met Leu Thr Val Leu Thr Leu Val 65 70 75 80

Cys Lys Gly Gln Asp Tyr Asn Arg Arg Gln Lys Leu Pro Thr His Ile 85 90

Leu Cys Leu Leu Xaa Glu Lys Gly Ile Phe Gly Leu Thr Phe Ala Phe 100 105 110

Ile Ile Gly Leu Asp Gly Ser Thr Gly Pro Thr Arg Phe Phe Leu Phe 115 120 125

Gly Ile Leu Phe Ser Ile Cys Phe Ser 130 135 137

<210> 2558

<211> 39

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(39)

<223> Xaa = any amino acid or nothing

### <400> 2558

Ile Lys Asn Tyr Trp Pro Gly Met Val Ala His Ala Cys Asn Pro Ser 1 10 15

Pro Leu Gly Gly Arg Gly Arg Trp Ile Ala Xaa Ala Gln Lys Phe Ala 20 25 30

Asp Ala Trp Ala Asp Ala Trp 35 39

<210> 2559

<211> 137

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(137)

<223> Xaa = any amino acid or nothing

### <400> 2559

Lys Ser Leu Arg Asn Val Trp Asp Leu Leu Asn Asn Thr Trp Lys Ala 1 5 10 15

Asp Arg Phe Phe Cys His Ser Ser Arg Thr Ser Thr Ile Arg Lys Gly 20 25 30

Asp Pro Gly Pro Thr Phe Ser Lys Met Ser Ile Trp Thr Ser Gly Arg 40 Thr Ser Ser Ser Tyr Arg His Asp Glu Lys Arg Asn Ile Tyr Gln Arg 50 55 60 Ile Arg Asp His Asp Leu Leu Asp Lys Arg Lys Thr Val Thr Ala Leu 70 75 Lys Ala Gly Glu Asp Arg Ala Ile Leu Leu Gly Leu Ala Met Met Val 90 Cys Ser Ile Met Met Xaa Phe Leu Leu Gly Ile Thr Leu Leu Arg Ser 105 100 110 Tyr Met Gln Ser Val Trp Thr Arg Glu Ser Gln Cys Thr Leu Leu Asn 125 120 115 Ala Ser Ile Thr Glu Thr Phe Asn Cys

<211> 127
<212> PRT
<213> Homo sapiens
<221> misc_feature
<222> (1)...(127)
<223> Xaa = any amino acid or nothing

<210> 2560

<210> 2561

<400> 2560 Ser Leu His Asp Met Leu Met Leu Ala Glu Gln Gln Lys Gln Lys 10 Trp Ala Val Asn Thr Gln Asn Thr Ala Trp Ser Asn Ala Asp Ser Lys 20 25 Phe Gly Gln Arg Ile Leu Glu Lys Met Glu Trp Ser Lys Gly Arg Gly 35 40 Leu Gly Val Gln Glu Gln Gly Gly Pro Asp Asp Ile Lys Val Gln Val 55 Lys Asn Asn Asp Leu Gly Leu Gln Ala Thr Ile Asn Asn Glu Ala Asn 70 75 Trp Ile Ala His Gln Asp Asp Phe Asn Trp Leu Leu Ala Glu Leu Asn 85 90 Thr Cys Gln Arg Gln Glu Thr Ala Asp Ser Xaa Xaa Xaa Trp Ser Pro 100 105 110 Lys Asn Ser His Val Gly Lys Asp Ser Gly Glu Leu Ser Ala Lys 115 120 125

<211> 124 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(124) <223> Kaa = any amino acid or nothing

<210> 2562

<211> 105

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(105)

<223> Xaa = any amino acid or nothing

<400> 2562

Gln Phe Pro Val Asp Gly Asp Tyr Gln Lys Ile Glu Lys Ile Thr Gln 10 Leu Phe Gln Ala Gln Asn Leu Ser Leu Cys Leu Ala Met Thr Arg Thr Arg Glu Leu Xaa Lys Gly Gly Gly Lys Gly Arg His Glu Xaa Ala Val 35 40 45 Val Pro Phe Leu Lys Lys Gly Gly Tyr Gly Val Lys Ala Pro Ala Ile 55 Leu Asn Thr Ser Asn Cys Thr Xaa Cys Phe Xaa Glu Thr Lys Met Leu 70 75 Ser Asp Asp Pro Lys Ala Cys Val Phe Glu Val Ser Ser Ala Asp Leu 85 Xaa Asn Thr Ser Phe Gly Val Ile Arg 100

<210> 2563

<211> 118

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (118)

<223> Xaa = any amino acid or nothing

<400> 2563

Ala Glu Leu Ser Leu Ala Ser Thr Ala Cys Gly Arg Asn Thr Ser Gly 5 1 10 Asp Ser Leu Pro Asp Tyr Asp Arg Ala Pro Ile Ser Ser Pro Leu Ala 25 Thr Ser Gly Thr Ile Leu Ser Ala Ile Ser Cys Leu Trp Asp Leu Pro 35 40 45 Thr Pro Val Leu Arg Val Gly Leu Ser Cys Gln Pro Ser Met Ser Ser 55 Gln Ile Pro Arg Met Tyr Ser Thr Asp Val Glu Ala Ala Val Asn Ser 70 75 Leu Glu Asp Leu Tyr Leu Gln Ala Tyr Tyr Ala Tyr Leu Cys Val Gly 90

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Leu Tyr Phe His Arg Asp Asp Met Ala Leu Glu Gly Val Ser Arg Phe
         100
                              105
Leu Xaa Glu Leu Ala Glu
                 118
       115
    <210> 2564
    <211> 45
    <212> PRT
    <213> Homo sapiens
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    <222> (1) ... (45)
    <223> Xaa = any amino acid or nothing
     <400> 2564
Ser Leu Ser Arg Trp Val Arg Ala Lys Leu Xaa Val Pro Tyr Asn Gln
                                    10
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Glu Asn Cys Leu Asn Pro Arg Gly Gly Cys Ser Glu Pro Arg Ser
           20
                               25
His Tyr Cys Thr Pro Ala Trp Ala Thr Glu Lys Asp Ser
                            40
        35
     <210> 2565
     <211> 65
     <212> PRT
     <213> Homo sapiens
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     <222> (1)...(65)
     <223> Xaa = any amino acid or nothing
     <400> 2565
Lys Pro Gly Asn Phe Ala Val Ser Ser Glu Tyr Xaa Asp Ile Thr Ser
                                 10
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                5
Gly Gln Leu Lys Thr Ala Val Arg Gly Xaa Ile Glu Met Thr Ser Thr
                               25
            20
Glu Glu Asn Phe Gly Glu Lys Leu His Asp Ile Gly Phe Gly Asn Gly
                                      45
                           40
        35
Phe Leu Asp Lys Thr Xaa Lys Ala Gln Ala Thr Lys Ala Lys Ile Asp
                        55
Lys
 65
     <210> 2566
     <211> 105
     <212> PRT
     <213> Homo sapiens
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     <222> (1)...(105)
     <223> Xaa = any amino acid or nothing
     <400> 2566
Cys Phe Leu Glu Asp Gly Cys Thr Gln Ala Ser Xaa Ala Glu Glu Ala
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<210> 2567 <211> 141 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(141) <223> Xaa = any amino acid'or nothing

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<211> 134 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1) ... (134) <223> Xaa = any amino acid or nothing

<210> 2568

Ile Ile Gln Ala Glu Phe Tyr Leu Asn Pro Asp Gln Ser Gly Glu Phe 55 60 Met Leu Asp Phe Glu Gly Glu Asp Thr Phe His Gly Asp Met Ala Lys 75 80 70 Lys Glu Thr Val Trp Arg Leu Glu Xaa Leu Ala Arg Leu Asp Asn Phe 90 85 Glu Ala Gln Arg Ala Leu Ala Asn Ile Ala Ala Asp Gln Ala Ala Leu 100 105 Glu Ile Met Asp Met Gly Ser Asp Tyr Thr Leu Ile Pro Asn Val Pro 115 120 Pro Lys Val Thr Val Leu 130

<210> 2569 <211> 94 <212> PRT <213> Homo sapiens

<210> 2570 <211> 166 <212> PRT <213> Homo sapiens

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Gly Ala Lys Ile Leu Lys 165 166

> <210> 2571 <211> 133 <212> PRT <213> Homo sapiens

<400> 2571 Lys Glu Arg Asp Ser Ser Thr Phe Ser Ala Ala Met Thr Thr Met Gln 10 Gly Met Glu Gln Ala Met Pro Gly Ala Gly Pro Gly Val Pro Gln Leu 20 25 Gly Asn Met Ala Val Ile His Ser His Leu Trp Lys Gly Leu Gln Glu · 40 35 Lys Phe Leu Lys Gly Glu Pro Lys Val Leu Gly Val Val Gln Ile Leu 50 60 55 60 Thr Ala Leu Met Ser Leu Ser Met Gly Ile Thr Met Met Cys Met Ala 70 75 Ser Asn Thr Tyr Gly Ser Asn Pro Ile Ser Val Tyr Ile Gly Tyr Thr 85 90 Ile Trp Gly Ser Val Met Phe Ile Ile Ser Gly Ser Leu Ser Ile Ala 105 100 110 Ala Gly Ile Arg Thr Thr Lys Gly Leu Val Arg Gly Ser Leu Gly Met 115 120 Asn Ile Thr Ser Ser 130 133

<210> 2572 <211> 123 <212> PRT <213> Homo sapiens

<400> 2572 Val Ala Lys Met Val Lys Cys Cys Ser Ala Ile Gly Cys Ala Ser Arg 10 Cys Leu Pro Asn Ser Lys Leu Lys Gly Leu Thr Phe His Val Phe Pro 25 20 Thr Asp Glu Asn Ile Lys Arg Lys Trp Val Leu Ala Met Lys Arg Leu 40 Asp Val Asn Ala Ala Gly Ile Trp Glu Pro Lys Lys Gly Asp Val Leu 60 Cys Ser Arg His Phe Lys Lys Thr Asp Phe Asp Arg Ser Ala Pro Asn 75 70 Ile Lys Leu Lys Pro Gly Val Ile Pro Ser Ile Phe Asp Ser Pro Tyr 90 85 His Leu Gln Gly Lys Arg Glu Lys Leu His Cys Arg Lys Asn Phe Thr 100 105 Leu Lys Thr Val Pro Ala Thr Asn Tyr Asn His 120

<210> 2573 <211> 85 <212> PRT <213> Homo sapiens

PCT/US01/03800 WO 01/57188

<400> 2573 Arg Thr Ser Met Gly Ile Leu Tyr Ser Glu Pro Ile Cys Gln Ala Ala 10 Tyr Gln Asn Asp Phe Gly Gln Val Trp Arg Trp Val Lys Glu Asp Ser 20 25 Ser Tyr Ala Asn Val Gln Asp Gly Phe Asn Gly Asp Thr Pro Leu Ile 35 40 Cys Ala Cys Arg Arg Gly His Val Arg Ile Val Ser Phe Leu Leu Lys 55 60 Lys Glu Cys Leu Cys Gln Pro Gln Lys Pro Glu Arg Glu Asn Leu Leu 75 70 Ala Leu Cys Cys Glu

<210> 2574 <211> 210 <212> PRT <213> Homo sapiens

<400> 2574

Asp Ala Trp Ala Ser Gly Gly Glu Leu Gly Ser Leu Phe Asp His His 10 Val Gln Arg Ala Val Cys Asp Thr Arg Ala Lys Tyr Arg Glu Gly Arg 20 25 Arg Pro Arg Ala Val Lys Val Tyr Thr Ile Asn Leu Glu Ser Gln Tyr 40 Leu Leu Ile Gln Gly Val Pro Ala Val Gly Val Met Lys Glu Leu Val 55 Glu Arg Phe Ala Leu Tyr Gly Ala Ile Glu Gln Tyr Asn Ala Leu Asp 70 75 Glu Tyr Pro Ala Glu Asp Phe Thr Glu Val Tyr Leu Ile Lys Phe Met
85 90 95 90 85 Asn Leu Gln Ser Ala Arg Thr Ala Lys Arg Lys Met Asp Glu Gln Ser 100 105 Phe Phe Gly Gly Leu Leu His Val Cys Tyr Ala Pro Glu Phe Glu Thr 120 Val Glu Glu Thr Arg Lys Lys Leu Gln Met Arg Lys Ala Tyr Val Val

130 135 140 Lys Thr Thr Glu Asn Lys Asp His Tyr Val Thr Lys Lys Leu Val 155 150 Thr Glu His Lys Asp Thr Glu Asp Phe Arg Gln Asp Phe His Ser Glu 165 170 Met Ser Gly Phe Cys Lys Ala Ala Leu Asn Thr Ser Ala Gly Asn Ser 185 180 190

Asn Pro Tyr Leu Pro Tyr Ser Cys Glu Leu Pro Leu Cys Tyr Phe Ser 200 205

Ser Lys 210

> <210> 2575 <211> 54 <212> PRT <213> Homo sapiens

<400> 2575 Arg Ser Gly Cys Val Leu Arg Met Thr Glu Trp Glu Thr Gly Ala Pro

Ala Val Ala Glu Thr Pro Asp Ile Lys Leu Phe Gly Lys Trp Ser Thr
20 25 30

Asp Asp Val His Ile Asn Asp Ile Ser Leu Gln Asp Tyr Ile Ala Gly
35 40 45

Val Arg Leu Ile Leu Leu
50 54

<210> 2576 <211> 137 <212> PRT <213> Homo sapiens

<400> 2576 Gln Gly Leu Pro Ser Phe Leu Pro Ala Phe Gly Pro Ser Gly Ser Trp 10 Leu Gly Pro Ala Pro Thr Leu Gly Ser Ser Cys Asn Thr Val Asp Thr 20 25 Ile Cys His Gly Tyr Ser Glu Ile Arg Pro Leu Phe Tyr Leu Ser Phe 40 Cys Asp Leu Leu Gly Leu Cys Trp Leu Thr Glu Thr Leu Leu Tyr 55 Gly Ala Ser Val Ala Asn Lys Asp Ile Ile Cys Tyr Asn Leu Gln Ala 70 Val Gly Gln Ile Phe Tyr Ile Ser Ser Phe Leu Tyr Thr Val Asn Tyr
85
90
95 85 90 Ile Trp Tyr Leu Tyr Thr Glu Leu Arg Met Lys His Thr Gln Ser Gly 100 105 110 Gln Ser Thr Ser Pro Leu Val Ile Asp Tyr Thr Cys Arg Val Cys Gln 115 120 Met Ala Phe Val Phe Ser Ser Leu Ile 135 137

<210> 2577
<211> 138
<212> PRT

<213> Homo sapiens

<400> 2577 Gly Lys Trp Lys Arg Thr Gln Val Pro Leu Leu Gly Glu Glu Cys Ala 10 Asp Met Asp Leu Ala Arg Lys Glu Phe Leu Arg Gly Asn Gly Leu Ala 20 25 Ala Gly Lys Met Asn Ile Ser Ile Asp Leu Asp Thr Asn Tyr Ala Glu Leu Val Leu Asn Val Gly Arg Val Thr Leu Gly Glu Asn Asn Arg Lys 55 60 Lys Met Lys Asp Cys Gln Leu Arg Lys Gln Gln Asn Glu Asn Val Ser 75 70 Arg Ala Val Cys Ala Leu Leu Asn Ser Gly Gly Gly Val Ile Lys Ala Glu Val Glu Asn Lys Gly Tyr Ser Tyr Lys Lys Asp Gly Ile Gly Leu 105 110 100 Asp Leu Glu Asn Ser Phe Ser Asn Met Leu Pro Phe Val Pro Asn Phe 120 125 Leu Asp Phe Met Gln Asn Gly Asn Tyr Phe 135

<210> 2578 <211> 44 <212> PRT <213> Homo sapiens

<210> 2579 <211> 260 <212> PRT <213> Homo sapiens

<400> 2579 Leu Phe Ala Met Ser Gly Phe Glu Asn Leu Asn Thr Asp Phe Tyr Gln 10 Thr Ser Tyr Ser Ile Asp Asp Gln Ser Gln Gln Ser Tyr Asp Tyr Gly 20 25 30 Gly Ser Gly Gly Pro Tyr Ser Lys Gln Tyr Ala Gly Tyr Asp Tyr Ser 40 Gln Gln Gly Arg Phe Val Pro Pro Asp Met Met Gln Pro Gln Gln Pro 55 Tyr Thr Gly Gln Ile Tyr Gln Pro Thr Gln Ala Tyr Thr Pro Ala Ser 70 75 Pro Gln Pro Phe Tyr Gly Asn Asn Phe Glu Asp Glu Pro Pro Leu Leu 85 90 95 Glu Glu Leu Gly Ile Asn Phe Asp His Ile Trp Gln Lys Thr Leu Thr 100 \$105\$ 110 Val Leu His Pro Leu Lys Val Ala Asp Gly Ser Ile Met Asn Glu Thr 120 Asp Leu Ala Gly Pro Met Val Phe Cys Leu Ala Phe Gly Ala Thr Leu 135 140 Leu Leu Ala Gly Lys Ile Gln Phe Gly Tyr Val Tyr Gly Ile Ser Ala 150 155 160 Ile Gly Cys Leu Gly Met Phe Cys Leu Leu Asn Leu Met Ser Met Thr 165  $\phantom{\bigg|}$  170  $\phantom{\bigg|}$  175 Gly Val Ser Phe Gly Cys Val Ala Ser Val Leu Gly Tyr Cys Leu Leu 180 185 190 Pro Met Ile Leu Leu Ser Ser Phe Ala Val Ile Phe Ser Leu Gln Gly 195 200 205 Met Val Gly Ile Ile Leu Thr Ala Gly Ile Ile Gly Trp Cys Ser Phe 215 220 Ser Ala Ser Lys Ile Phe Ile Ser Ala Leu Ala Met Glu Gly Gln Gln 230 235 Leu Leu Val Ala Tyr Pro Cys Ala Leu Leu Tyr Gly Val Phe Ala Leu 250 255 245 Ile Ser Val Phe

<210> 2580 <211> 78 <212> PRT

## <213> Homo sapiens

<210> 2581 <211> 354 <212> PRT <213> Homo sapiens

<400> 2581 Thr Pro Leu Phe Asp Phe Trp Pro Gly Phe Val Leu Ser Trp Leu Gln 10 Pro Leu Ser Ala Ser Leu Arg Ala Arg Arg Ala Ala Ser Gly Pro Pro 25 20 Ala Cys Arg Ile Met Pro Thr Thr Val Asp Asp Val Leu Glu His Gly Gly Glu Phe His Phe Phe Gln Lys Gln Met Phe Phe Leu Leu Ala Leu 55 Leu Ser Ala Thr Phe Ala Pro Ile Tyr Val Gly Ile Val Phe Leu Gly 70 75 Phe Thr Pro Asp His Arg Cys Arg Ser Pro Gly Val Ala Glu Leu Ser 85 90 Leu Arg Cys Gly Trp Ser Pro Ala Glu Glu Leu Asn Tyr Thr Val Pro 105 Gly Pro Gly Pro Ala Gly Glu Ala Ser Pro Arg Gln Cys Arg Arg Tyr 120 125 Glu Val Asp Trp Asn Gln Ser Thr Phe Asp Cys Val Asp Pro Leu Ala 135 140 Ser Leu Asp Thr Asn Arg Ser Arg Leu Pro Leu Gly Pro Cys Arg Asp 150 155 Gly Trp Val Tyr Glu Thr Pro Gly Ser Ser Ile Val Thr Glu Phe Asn 165 170 Leu Val Cys Ala Asn Ser Trp Met Leu Asp Leu Phe Gln Ser Ser Val 180 185 Asn Val Gly Phe Phe Ile Gly Ser Met Ser Ile Gly Tyr Ile Ala Asp 195 200 205 Arg Phe Gly Arg Lys Leu Cys Leu Leu Thr Thr Val Leu Ile Asn Ala 215 220 Ala Ala Gly Val Leu Met Ala Ile Ser Pro Thr Tyr Thr Trp Met Leu 230 235 Ile Phe Arg Leu Ile Gln Gly Leu Val Ser Lys Ala Gly Trp Leu Ile 245 250 . Gly Tyr Ile Leu Ile Thr Glu Phe Val Gly Arg Arg Tyr Arg Arg Thr 265 260 270 Val Gly Ile Phe Tyr Gln Val Ala Tyr Thr Val Gly Leu Leu Val Leu 280 285 Ala Gly Val Ala Tyr Ala Leu Pro His Trp Arg Trp Leu Gln Phe Thr 295 300 Val Ala Leu Pro Asn Phe Phe Phe Leu Leu Tyr Tyr Trp Cys Ile Pro

Glu Ser Pro Arg Trp Leu Ile Ser Gln Asn Lys Asn Ala Glu Ala Met 325 330 - 335 Arg Ile Ile Lys His Ile Ala Lys Lys Asn Gly Lys Ser Leu Pro Ala 340 345 350 Ser Leu 354

<210> 2582 <211> 118 <212> PRT

<213> Homo sapiens

<400> 2582 Pro Gly Pro Gly Met Gln Gly Pro Pro Pro Ile Thr Pro Thr Ser Trp 5 Ser Leu Pro Pro Trp Arg Ala Tyr Val Ala Ala Ala Val Leu Cys Tyr 20 25 Ile Asn Leu Leu Asn Tyr Met Asn Trp Phe Ile Ile Aka Gly Val Leu 35 40 Leu Asp Ile Gln Glu Val Phe Gln Ile Ser Asp Asn His Ala Gly Leu 55 60 Leu Gln Thr Val Phe Val Ser Cys Leu Leu Ser Ala Pro Val Phe 70 Gly Tyr Leu Gly Asp Arg His Ser Arg Lys Ala Thr Met Ser Phe Gly 85 90 95 Ile Leu Leu Trp Ser Gly Ala Gly Leu Ser Ser Ser Phe Ile Ser Pro 100 105 Arg Tyr Ser Trp Leu Phe 115 118

<210> 2583 <211> 131 <212> PRT <213> Homo sapiens

<400> 2583 Leu Pro Ala Pro Trp Thr Glu Arg Val Arg Lys Ser Glu Gly Leu Val 10 Gly Thr Cys Leu Gly Asp Pro Met Ala Ser Pro Arg Thr Val Thr Ile 20 25 Val Ala Leu Ser Val Ala Leu Gly Leu Phe Phe Val Phe Met Gly Thr 35 40 Ile Lys Leu Thr Pro Arg Leu Ser Lys Asp Ala Tyr Ser Glu Met Lys 55 60 Arg Ala Tyr Lys Ser Tyr Val Arg Ala Leu Pro Leu Leu Lys Lys Met 65 70 80 Gly Ile Asn Ser Ile Leu Leu Arg Lys Ser Ile Gly Ala Leu Glu Val 85 90 Ala Cys Gly Ile Val Met Thr Leu Val Pro Gly Arg Pro Lys Asp Val 105 Ala Asn Phe Phe Leu Leu Leu Val Leu Ala Val Leu Phe Phe His 115 120 Gln Leu Val 130 131

<210> 2584

<211> 128 <212> PRT <213> Homo sapiens

<400> 2584

Arg Leu Glu Leu Asp Trp Gly Phe Ser Leu His Phe Leu Pro Val Ala 10 Tyr Leu Cys Pro Leu Ser Ser Gly Phe Glu Met Asn Val Gln Pro Cys 20 25 Ser Arg Cys Gly Tyr Gly Val Tyr Pro Ala Glu Lys Ile Ser Cys Ile 35 40 Asp Gln Ile Trp His Lys Ala Cys Phe His Cys Glu Val Cys Lys Met 55 60 Met Leu Ser Val Asn Asn Phe Val Ser His Gln Lys Lys Pro Tyr Cys 70 75 His Ala His Asn Pro Lys Asn Asn Thr Phe Thr Ser Val Tyr His Thr 85 90 95 Pro Leu Asn Leu Asn Val Arg Thr Phe Pro Glu Ala Ile Ser Gly Ile 100 105 His Asp Gln Glu Asp Gly Glu Gln Cys Lys Ser Val Phe His Trp Asp

<210> 2585 <211> 169 <212> PRT <213> Homo sapiens

<400> 2585

Ile Arg Ser Gly Ala Met Ser Val Asp Lys Ala Glu Leu Cys Gly Ser 10 Leu Leu Thr Trp Leu Gln Thr Phe His Val Pro Ser Pro Cys Ala Ser 20 Pro Gln Asp Leu Ser Ser Gly Leu Ala Val Ala Tyr Val Leu Asn Gln
35 40 45 Ile Asp Pro Ser Trp Phe Asn Glu Ala Trp Leu Gln Gly Ile Ser Glu 55 60 Asp Pro Gly Pro Asn Trp Lys Leu Lys Val Thr Ser Gly Leu Leu Ile 70 75 Arg Gly Gln Thr Gly Glu Glu Met Thr Arg Asp Gly Pro Ala Arg His 90 Met Ser Trp Val Met Gly Arg Lys Arg Asp Arg Cys Leu Val Ile Asn 100 105 110 His Leu Phe Ile His Ser Ser Met Glu Tyr Ser Pro Cys Ala Arg Pro 115 120 125 Gly His Ser Ala Arg Asn Asn Thr Asp Lys Asn Leu Pro His Thr Ala 130 140 Ile Ile Leu Val Thr Ser Asn Thr Tyr Thr Thr Ile Lys Ile Asn Phe 150 155 Gln Ala Gly Arg Ser Gly Ser Cys Leu 165

<210> 2586 <211> 85 <212> PRT <213> Homo sapiens

<400> 2586 Phe Arg Gly Glu Ala Leu Thr Val Arg Phe Leu Thr Lys Arg Phe Ile 5 10 Gly Glu Tyr Ala Ser Asn Phe Glu Ser Ile Tyr Lys Lys His Leu Cys 25 Leu Glu Arg Lys Gln Leu Asn Leu Glu Ile Tyr Asp Pro Cys Ser Gln 40 45 35 Thr Gln Lys Ala Lys Phe Ser Leu Thr Ser Glu Leu His Trp Ala Asp 50 55 60 Gly Phe Val Ile Val Tyr Asp Ile Ser Asp Arg Ser Ser Phe Ala Phe 70 75 Ala Lys Ala Leu Ile

<210> 2587 <211> 83 <212> PRT <213> Homo sapiens

<400> 2587 Asn Ile Leu Ala Ile Ile Tyr Phe Pro Phe Pro Arg Leu Phe Leu Leu 10 Arg Asp Ser Gln Ser Asn Pro Lys Ala Phe Ala Leu Thr Leu Cys His 25 His Gln Lys Ile Lys Asn Phe Gln Ile Leu Pro Val Ser Ile Asp Ala 35 40 Leu Thr Pro Pro Leu Val Val Cys Phe Leu Val Ser Phe Leu Thr His 60 55 Phe Ser Arg Tyr Lys Pro Thr Arg Pro Val Cys Ile Thr Gln Phe Gln 70 75 65 Gly Cys Ser 83

<210> 2588 <211> 143 <212> PRT

<213> Homo sapiens

<400> 2588 Glu Leu Gly Ala Gly Arg Ser Asp Arg Glu Ala Met Glu Ala Ala Val 10 Lys Glu Glu Ile Ser Val Glu Asp Glu Ala Val Asp Lys Asn Ile Phe 25 20 Arg Asp Cys Asn Lys Ile Ala Phe Tyr Arg Arg Gln Lys Gln Trp Leu 40 Ser Lys Lys Ser Thr Tyr Arg Ala Leu Leu Asp Ser Val Thr Thr Asp 55 60 Glu Asp Ser Thr Arg Phe Gln Ile Ile Asn Glu Ala Ser Lys Val Pro 70 75 Leu Leu Ala Glu Ile Tyr Gly Ile Glu Gly Asn Ile Phe Arg Leu Lys
85 90 95 90 Ile Asn Glu Glu Thr Pro Leu Lys Pro Arg Phe Glu Val Pro Asp Val Leu Thr Ser Lys Pro Ser Thr Val Arg Leu Ile Ser Cys Ser Gly Asp 115 120 125 Thr Gly Ser Leu Ile Leu Ala Asp Gly Lys Gly Asp Leu Lys Cys 140 143 135 130

<210> 2589 <211> 145 <212> PRT <213> Homo sapiens

<400> 2589 Val Pro Gly Asp Pro Ala Met Val Arg Ala Gly Ala Val Gly Ala His 5 10 Leu Pro Ala Ser Gly Leu Asp Ile Phe Gly Asp Leu Lys Lys Met Asn 20 25 Lys Arg Gln Leu Tyr Tyr Gln Val Leu Asn Phe Ala Met Ile Val Ser 35 40 45 Ser Ala Leu Met Ile Trp Lys Gly Leu Ile Val Leu Thr Gly Ser Glu 55 Ser Pro Ile Val Val Leu Ser Gly Ser Met Glu Pro Ala Phe His 70 75 Arg Gly Asp Leu Leu Phe Leu Thr Asn Phe Arg Glu Asp Pro Ile Arg . 85 90 Ala Gly Glu Ile Val Val Phe Lys Val Glu Gly Arg Asp Ile Pro Ile 100 105 Val His Arg Val Ile Lys Val His Glu Lys Asp Asn Gly Asp Ile Lys 115 120 125 Phe Leu Thr Lys Gly Asp Asn Asn Glu Gly Asp Asp Arg Gly Ser Tyr 135 140 145

<210> 2590 <211> 100 <212> PRT <213> Homo sapiens

<400> 2590 Thr Asp Gly Arg Asp Pro Leu Pro Cys Ala Ala Arg Arg Arg Gly Gly 10 Gly Gly Glu Cys Cys Gly Ala Gly Trp Val Ala Glu Trp Ser Pro Gln 20 25 Pro Leu Asp Pro Ala Met Leu Leu Trp Met Gln Gly Phe Val Leu Glu 40 Ala Val Ala Cys Gln Asp Asn Asp Tyr Leu Arg Tyr Gly Ile Leu 55 60 Phe Glu Asp Leu Asp Cys Asn Gly Asp Gly Val Val Asp Ile Ile Glu 70 75 Leu Gln Glu Gly Leu Arg Asn Trp Ser Ser Ala Phe Asp Pro Asn Ser Glu Glu His Gly 100

<210> 2591 <211> 123 <212> PRT <213> Homo sapiens

<400> 2591

PCT/US01/03800 WO 01/57188

Ser Pro Ala Arg Gly Lys Ser Asn Arg Thr Asp Val Met Ile Thr Ala 10 Pro Lys Asn Lys Lys Met Thr Glu Asn Leu Ala Ala Pro Glu Ala Leu 25 Asp Ser Ser Thr His Ser Ser Ser Thr Ala Thr Gln Ser Arg Ala Lys 40 35 Met Asn Thr Pro Ala Pro Thr Pro Ser Thr Val Pro Ala Ile Pro Arg 60 50 55 Gly Gly Ser Gly Gly Pro Pro Pro Cys Ala Pro His Asp Arg Val Ser 70 75 Ser Val Leu Gln Cys Asp Thr Gln Ala Met Asp His Lys Thr Glu Ser 90 Ser His Ser Val Val Glu Phe Leu Phe Lys Arg Thr Lys Thr Pro Ser 100 105 Pro Phe His Pro Ala Val Arg Glu Asn Arg Asn 120 123

<210> 2592 <211> 195 <212> PRT

<213> Homo sapiens

<400> 2592 Thr Ile Ser Cys Gly Pro Ala Thr Glu Pro Pro Ala Ser Leu Leu Ser ı Ser Alæ Ser Ser Asp Asp Phe Cys Lys Glu Lys Thr Glu Asp Arg Tyr 25 20 Ser Leu Gly Ser Ser Leu Asp Ser Gly Met Arg Thr Pro Leu Cys Arg 40 35 Ile Cys Phe Gln Gly Pro Glu Gln Gly Glu Leu Leu Ser Pro Cys Arg 55 Cys Asp Gly Ser Val Lys Cys Thr His Gln Pro Cys Leu Ile Lys Trp 65 70 75 80 Ile Ser Glu Arg Gly Cys Trp Ser Cys Glu Leu Cys Tyr Tyr Lys Tyr 85 90 95 His Val Ile Ala Ile Ser Thr Lys Asn Pro Leu Gln Trp Gln Ala Ile 100 105 Ser Leu Thr Val Ile Glu Lys Val Gln Val Ala Ala Ile Leu Gly . 120 125 115 Ser Leu Phe Leu Ile Ala Ser Ile Ser Trp Leu Ile Trp Ser Thr Phe 140 135 Ser Pro Ser Ala Arg Trp Gln Arg Gln Asp Leu Leu Phe Gln Ile Cys 155 150 Tyr Gly Met Tyr Gly Phe Met Asp Val Met Ile Val Ala Val Asp Ser 170 175 165 Glu Asp Met Val Gln Ala Ala Lys Glu Val Gly Lys Arg Trp Ser Asp 185 Ile Pro Pro

<210> 2593 <211> 71 <212> PRT <213> Homo sapiens

195

<400> 2593 Trp Arg Ile Ser His His Ala Gly Lys Met Pro Val Met Lys Gly Leu

<210> 2594 <211> 178 <212> PRT <213> Homo sapiens

<400> 2594 Pro Ile Cys Gly Phe Leu Tyr Leu Cys Ser Ala Met Ala Ser Glu Ser 10 Ser Pro Leu Leu Ala Tyr Arg Leu Leu Gly Glu Glu Gly Val Ala Leu 20 25 Pro Ala Asn Gly Ala Gly Gly Pro Gly Gly Ala Ser Ala Arg Lys Leu 40 Ser Thr Phe Leu Gly Val Val Val Pro Thr Val Leu Ser Met Phe Ser 55 Ile Val Val Phe Leu Arg Ile Gly Phe Val Val Gly His Ala Gly Leu 70 75 Leu Gln Ala Leu Ala Met Leu Leu Val Ala Tyr Phe Ile Leu Ala Leu 90 85 Thr Val Leu Ser Val Cys Ala Ile Ala Thr Asn Gly Ala Val Gln Gly 105 Gly Gly Ala Tyr Cys Ile Leu Gln His Arg Trp Thr Gly Val Trp Pro 120 Val Leu Pro Ala Arg Glu Val Met Ile Ser Arg Thr Leu Gly Pro Glu 135 140 Val Gly Gly Ser Ile Gly Leu Met Phe Tyr Leu Ala Asn Val Cys Gly 150 155 Cys Ala Val Ser Leu Leu Gly Leu Val Glu Ser Val Leu Asp Val Phe Gly Ala 178

<210> 2595 <211> 349 <212> PRT <213> Homo sapiens

Ser Leu Thr Glu Asp Val Leu Ala Ala Ala Leu Ala Asp His Leu Pro 100 105 Glu Asp Lys Trp Ser Ala Glu Lys Arg Arg Pro Leu Lys Ser Ser Leu 125 120 115 Gly Tyr Glu Ile Thr Phe Ser Leu Leu Asn Pro Asp Pro Lys Ser His 130 135 140 Asp Val Tyr Trp Asp Ile Glu Gly Ala Val Arg Arg Tyr Val Gln Pro 150 155 Phe Leu Asn Ala Leu Gly Ala Ala Gly Asn Phe Ser Val Asp Ser Gln 165 170 Ile Leu Tyr Tyr Ala Met Leu Gly Val Asn Pro Arg Phe Asp Ser Ala 180 185 190 Ser Ser Ser Tyr Tyr Leu Asp Met His Ser Leu Pro His Val Ile Asn 195 200 205 Pro Val Glu Ser Arg Leu Gly Ser Ser Ala Ala Ser Leu Tyr Pro Val 210 215 220 215 Leu Asn Phe Leu Leu Tyr Val Pro Glu Leu Ala His Ser Pro Leu Tyr 225 230 235 Ile Gln Asp Lys Asp Gly Ala Pro Val Ala Thr Asn Ala Phe His Ser 245 250 Pro Arg Trp Gly Gly Ile Met Val Tyr Asn Val Asp Ser Lys Thr Tyr 265 260 270 Asn Ala Ser Val Leu Pro Val Arg Val Glu Val Asp Met Val Arg Val 280 Met Glu Val Phe Leu Ala Gln Leu Arg Leu Leu Phe Gly Ile Ala Gln 290 295 300 Pro Gln Leu Pro Pro Lys Cys Leu Leu Ser Gly Pro Thr Ser Glu Gly 305 310 315 320 Leu Met Thr Trp Glu Leu Asp Arg Leu Leu Trp Ala Arg Ser Val Glu 325 330 Asn Leu Ala Thr Ala Thr Thr Thr Leu Thr Ser Leu Ala 345

<210> 2596 <211> 117 <212> PRT <213> Homo sapiens

<400> 2596

Pro Pro Gln Leu Gly Ala Gln Arg Val Arg Glu Pro Arg His Pro Asp 10 Val Arg Ala Pro Leu Arg Val Thr Ser Pro Gly Leu Arg Ser Arg Ser 20 25 30 Ala Arg Ser Leu Gly Arg Arg Pro Arg Ile Ala Met Val Thr Val Gly 35 40 45 Asn Tyr Cys Glu Ala Glu Gly Pro Val Gly Pro Ala Trp Met Gln Asp 55 60 Gly Leu Ser Pro Cys Phe Phe Phe Thr Leu Val Pro Ser Thr Arg Met 65 · 70 75 Ala Leu Gly Thr Leu Ala Leu Val Leu Ala Leu Pro Cys Lys Arg Arg 85 90 Glu Arg Pro Ala Gly Ala Asp Ser Leu Ser Trp Gly Ala Gly Pro Arg 100 105 Ile Ser Ser Tyr Val 115 117

<210> 2597 <211> 108 <212> PRT

## <213> Homo sapiens

<210> 2598 <211> 129 <212> PRT <213> Homo sapiens

<400> 2598 Arg Val Asp Asp Phe Val Tyr Ser Lys Gly Gly Lys Asp Ala Gly Gly 10 Ala Asp Val Ser Leu Ala Cys Arg Arg Gln Ser Ile Pro Glu Glu Phe 25 Arg Gly Ile Thr Val Val Glu Leu Ile Lys Lys Glu Gly Ser Thr Leu 40 Gly Leu Thr Ile Ser Gly Gly Thr Asp Lys Asp Gly Lys Pro Arg Val 55 60 Ser Asn Leu Arg Pro Gly Gly Leu Ala Ala Arg Ser Asp Leu Leu Asn 70 75 Ile Gly Asp Tyr Ile Arg Ser Val Asn Gly Ile His Leu Thr Arg Leu 90 Arg His Asp Glu Ile Ile Thr Leu Leu Lys Asn Val Gly Glu Arg Val 105 110 Val Leu Glu Val Glu Tyr Glu Leu Pro Pro Pro Gly Gly Cys Pro Trp 120 Thr

Thr 129

> <210> 2599 <211> 421 <212> PRT <213> Homo sapiens

Gly Val Ala Ala Gly Pro Ala Ala Arg His Ala Pro Arg Arg Cys 75 Ala Asp Ala Gly Glu Ala Val Gly Ala Ser Cys Gly Arg Cys Ala Val 85 90 Ala Leu Leu Ser Gly Val Cys Thr Leu Val Ser Thr His Val Cys Val 100 105 Gly Ser Gly Cys Pro Gly Ala Ala Gly Thr Pro Met Gly Ala Gly Asp 120 125 Ala Gly Ala Ser Ala Glu Ser Ala Val Thr Thr Ala Pro Gln Glu Pro 130 135 140 Pro Ala Arg Pro Leu Gln Ala Gly Ser Gly Ala Gly Pro Ala Pro Gly 150 155 Arg Ala Met Arg Ser Thr Thr Leu Leu Ala Leu Leu Ala Leu Val Leu 165 170 Leu Tyr Leu Val Ser Gly Ala Leu Val Phe Arg Ala Leu Glu Gln Pro 180 185 190 His Glu Gln Gln Ala Gln Arg Glu Leu Gly Glu Val Arg Glu Lys Phe 200 Leu Arg Ala His Pro Cys Val Ser Asp Gln Glu Leu Gly Leu Leu Ile 215 220 Lys Glu Val Ala Asp Ala Leu Gly Gly Gly Ala Asp Pro Glu Thr Asn 230 235 Ser Thr Ser Asn Ser Ser His Ser Ala Trp Asp Leu Gly Ser Ala Phe 245 250 Phe Phe Ser Gly Thr Ile Ile Thr Thr Ile Gly Gly Gly Asp Trp 260 265 His Val Gly Gly Lys Glu Leu Pro His Gly Gly Arg Cys Arg Glu 275 280 285 Thr Glu Gly Ser Gln Val Ala Pro Arg Leu Pro Ala Ser Pro Leu Cys 295 300 Pro Gly Tyr Gly Asn Val Ala Leu Arg Thr Asp Ala Gly Arg Leu Phe 310 315 Cys Ile Phe Tyr Ala Leu Val Gly Ile Pro Leu Phe Gly Ile Leu Leu 325 330 Ala Gly Val Gly Asp Arg Leu Gly Ser Ser Leu Arg His Gly Ile Gly 340 345 350 His Ile Glu Ala Ile Phe Leu Lys Trp His Val Pro Pro Glu Leu Val 365 360 Arg Val Leu Ser Ala Met Leu Phe Leu Leu Ile Gly Cys Leu Leu Phe 370 375 380 Val Leu Thr Pro Thr Phe Val Phe Cys Tyr Met Glu Asp Trp Ser Lys 390 395 Leu Glu Ala Ile Tyr Phe Val Ile Val Thr Leu Thr Thr Val Gly Phe 405 410 Gly Asp Tyr Val Ala 420 421

<210> 2600 <211> 217 <212> PRT <213> Homo sapiens

Leu Lys Trp Ala Val Leu Val Leu Val Gln Met Leu Ala Cys 70 Trp Leu Val Arg Gly Leu Ala Trp Arg Trp Leu Leu Phe Trp Ala Tyr Ala Phe Gly Gly Cys Val Asn His Ser Leu Thr Leu Ala Ile His Asp 105 100 Ile Ser His Asn Ala Ala Phe Gly Thr Gly Arg Ala Ala Arg Asn Arg 120 Trp Leu Ala Val Phe Ala Asn Leu Pro Glu Gly Val Pro Tyr Ala Ala 135 140 Ser Phe Lys Lys Tyr His Val Asp His His Arg Tyr Leu Gly Gly Asp 150 155 Gly Leu Asp Val Asp Val Pro Thr Arg Leu Glu Gly Trp Phe Phe Cys 165 170 Thr Pro Ala Arg Lys Leu Leu Trp Leu Val Leu Gln Pro Phe Phe Tyr 185 180 Ser Leu Arg Pro Leu Cys Val His Pro Lys Ala Val Thr Arg Met Glu 195 200 Val Leu Asn Thr Leu Val Gln Leu Ala 215

<210> 2601 <211> 352 <212> PRT <213> Homo sapiens

<400> 2601 Pro Val Ile Met Pro Leu His Phe Ser Pro Gly Asp Ile Val Arg Pro 5 10 Ser Cys Cys Val Ser Ser Ser Pro Lys Leu Arg Arg Asn Ala His Ser Arg Leu Glu Ser Tyr Arg Pro Asp Thr Asp Leu Ser Arg Glu Asp Thr 40 Gly Cys Asn Leu Gln His Ile Ser Asp Arg Glu Asn Ile Asp Asp Leu 55 60 Asn Met Glu Phe Asn Pro Ser Asp His Pro Arg Ala Ser Thr Ile Phe 70 75 Leu Ser Lys Ser Gln Thr Asp Val Arg Glu Lys Arg Lys Ser Leu Phe Ile Asn His His Pro Pro Gly Gln Ile Ala Arg Lys Tyr Ser Ser Cys 105 Ser Thr Ile Phe Leu Asp Asp Ser Thr Val Ser Gln Pro Asn Leu Lys 120 125 Tyr Thr Ile Lys Cys Val Ala Leu Ala Ile Tyr Tyr His Ile Lys Asn 135 140 Arg Asp Pro Asp Gly Arg Met Leu Leu Asp Ile Phe Asp Glu Asn Leu 150 155 His Pro Leu Ser Lys Ser Glu Val Pro Pro Asp Tyr Asp Lys His Asn 170 165 Pro Glu Gln Lys Gln Ile Tyr Arg Phe Val Arg Thr Leu Phe Ser Ala 185 190 Ala Gln Leu Thr Ala Glu Cys Ala Ile Val Thr Leu Val Tyr Leu Glu 200 205 Arg Leu Leu Thr Tyr Ala Glu Ile Asp Ile Cys Pro Ala Asn Trp Lys 215 220 Arg Ile Val Leu Gly Ala Ile Leu Leu Ala Ser Lys Val Trp Asp Asp 230 235 Gln Ala Val Trp Asn Val Asp Tyr Cys Gln Ile Leu Lys Asp Ile Thr 245 250 Val Glu Asp Met Asn Glu Leu Glu Arg Gln Phe Leu Glu Leu Leu Gln 265

Phe Asn Ile Asn Val Pro Ser Ser Val Tyr Ala Lys Tyr Tyr Phe Asp 280 Leu Arg Ser Leu Ala Glu Ala Asn Asn Leu Ser Phe Pro Leu Glu Pro 290 300 295 Leu Ser Arg Glu Arg Ala His Lys Leu Glu Ala Ile Ser Arg Leu Cys 305 310 · 315 320 Glu Asp Lys Tyr Lys Asp Leu Arg Arg Ser Ala Arg Lys Arg Ser Ala 325 330 Ser Ala Asp Asn Leu Thr Leu Pro Arg Trp Ser Pro Ala Ile Ile Ser 345

<210> 2602 <211> 123 <212> PRT

<213> Homo sapiens

<400> 2602 Lys Arg Pro Asp Ser Arg Pro Pro Ala Gln Tyr Arg Ala Gly Pro Thr 10 Arg Pro Arg Thr Arg Gly Cys Glu Leu Leu Tyr Trp Lys Ala Thr Lys . · 25 20 Ala Val Gly Ile Lys Met Gly Ser Leu Ser Thr Ala Asn Val Glu Phe 35 40 45 Cys Leu Asp Val Phe Lys Glu Leu Asn Ser Asn Asn Ile Gly Asp Asn 55 Ile Phe Phe Ser Ser Leu Ser Leu Leu Tyr Ala Leu Ser Met Val Leu 70 75 Leu Gly Ala Arg Gly Glu Thr Glu Glu Gln Leu Glu Lys Val Trp Asn 85 90 ⁻ Ser Ser Glu Val Cys Ser Glu Pro Arg Ser Leu Ser Cys Ser Arg Ser 105 100 Gly Ser Ala Lys Leu Ile Leu Ser Leu Tyr Gln 115 120

<210> 2603 <211> 69 <212> PRT <213> Homo sapiens

<400> 2603 Lys Glu Gln Ala Glu Leu Leu Tyr Gly Leu Tyr Cys Gln Cys Asp Leu 5 · 10 Thr Leu Ser Ser His Pro Ser Ser Val Pro Ala Met Ser Ser Cys Asn 20 25 Phe Thr His Ala Thr Phe Val Leu Ile Gly Ile Pro Gly Leu Glu Lys 40 45 Ala His Phe Trp Val Gly Phe Pro Leu Leu Ser Met Tyr Val Ala Ala 50 55 60 Met Phe Gly Asn Cys 65 69

<210> 2604 <211> 158 <212> PRT

# <213> Homo sapiens

<400> 2604 Val Ile Ser Phe Gln Ile Ile Thr Asp Thr Ile Met Asp Ser Ser Thr 10 Ala His Ser Pro Val Phe Leu Val Phe Pro Pro Glu Ile Thr Ala Ser 20 -25 Glu Tyr Glu Ser Thr Glu Leu Ser Ala Thr Thr Phe Ser Thr Gln Ser 40 Pro Leu Gln Lys Leu Phe Ala Arg Lys Met Lys Ile Leu Gly Thr Ile 55 60 Gln Ile Leu Phe Gly Ile Met Thr Phe Ser Phe Gly Val Ile Phe Leu 70 75 Phe Thr Leu Leu Lys Pro Tyr Pro Arg Phe Pro Phe Ile Phe Leu Ser 85 90 Gly Tyr Pro Phe Trp Gly Ser Val Leu Phe Ile Asn Ser Gly Ala Phe 105 110 100 Leu Ile Ala Val Lys Arg Lys Thr Thr Glu Thr Leu Ile Ile Leu Ser 120 125 Arg Ile Met Asn Phe Leu Ser Ala Leu Gly Ala Ile Ala Gly Ile Ile 135 140 Leu Leu Thr Phe Glu Phe His Pro Arg Ser Lys Leu His Leu 150 155

<210> 2605 <211> 105 <212> PRT <213> Homo sapiens

<400> 2605 Arg Pro Gly Arg Glu Gln Arg Asp Cys Phe Gln Ala Pro Pro Leu Gly Leu Gly Gly Arg Gln Thr Asp Met Met His His Pro Leu Thr Gly Ala 20 25 Thr Cys Val Gly Leu Pro Asn Val Gly Met Cys Pro Gln Leu Ser Gly 40 35 45 Ala Leu Thr Phe Met Tyr Leu Gln Gln Gly Asn Gln Glu Ala Thr Val Ala Pro Asp Thr Met Ala Gln Pro Tyr Ala Ser Ala Gln Phe Ala Pro 70 75 Pro Gln Asn Gly Ile Pro Gly Glu Tyr Thr Ala Pro His Pro His Pro 85 Ala Pro Glu Tyr Thr Gly Gln Thr Thr 100

<210> 2606 <211> 101 <212> PRT <213> Homo sapiens

 Pro
 Lys
 Ile
 Lys
 Val
 Glu
 Cys
 Glu
 Val
 Glu
 Glu
 Ile
 Asp
 Gln
 Cys
 Thr

 50
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 60
 60
 Fro
 Phe
 Ser
 Lys
 Cys
 Pro
 Phe
 Ser
 Arg
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 Cys
 Pro
 Phe
 Ser
 Arg
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 Val
 Ser
 Leu
 Thr
 Leu
 Tyr
 His

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 61
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<210> 2607 <211> 28 <212> PRT <213> Homo sapiens

<400> 2607

Glu His Leu Lys Ser Thr Pro Asn Arg Leu Gly Val Val Ala His Thr

1 5 10 Cys Asn Pro Ser Thr Leu Gly Gly Arg Gly Gly Trp 20 25 28

<210> 2608 <211> 537 <212> PRT <213> Homo sapiens

245

<400> 2608 Ala Gly Pro Gly Val Pro Ala Val Gly Gly Arg Trp Ala Ser Gly Pro 1 5 10 15 Gly Leu Gly Gly Arg Thr Leu Cys Ser Gly Pro Pro Asp His Gln Arg 20 25 30 20 25 Arg Gly Pro Ser Cys Gly Ala Ser Gly Asp Pro Gln Cys Val Gly Ser 35 40 45 Pro His Pro Gln Arg Ala Arg Pro Leu Leu Ala Arg Pro Gly Ala Arg 55 Leu Leu Pro Gly His Leu Pro Ser Pro Arg Pro Pro Arg Leu Pro Thr 75 70 Gly Gln Pro Pro Ala Ala Ala Phe Arg Gly Pro Val Arg Pro Gln Gly 85 90 Gly Gly His Ile His Pro Leu Pro Thr Pro Gly Gly Arg Pro Cys Phe 100 105 110 Ala Val Ser Glu Gly Ser Gly Ser Ala Leu Leu Leu Ser Tyr Leu Gly
115 120 125 Glu Cys Gly Ser Ser Ser Tyr Val Thr Gly Ala Ala Cys Ile Ser Pro 135 140 Val Leu Arg Cys Arg Glu Trp Phe Glu Ala Gly Leu Pro Trp Pro Tyr 155 160 150 Glu Arg Gly Phe Leu Leu His Gln Lys Ile Ala Leu Ser Arg Tyr Ala 165 170 175 Thr Ala Leu Glu Asp Thr Val Asp Thr Ser Arg Leu Phe Arg Ser Arg 180 185 Ser Leu Arg Glu Phe Glu Glu Ala Leu Phe Cys His Thr Lys Ser Phe 195 200 205 Pro Ile Ser Trp Asp Ala Tyr Trp Asp Arg Asn Asp Pro Leu Arg Asp 210 215 220 Val Asp Glu Ala Ala Val Pro Val Leu Cys Ile Cys Ser Ala Asp Asp 230 235 240 Pro Val Cys Gly Pro Pro Asp His Thr Leu Thr Thr Glu Leu Phe His

Ser Asn Pro Tyr Phe Phe Leu Leu Leu Ser Arg His Gly His Cys 260 265 Gly Phe Leu Arg Gln Glu Pro Leu Pro Ala Trp Ser His Glu Val Ile . 285 280 Leu Glu Ser Phe Arg Ala Leu Thr Glu Phe Phe Arg Thr Glu Glu Arg 290 295 . 300 Ile Lys Gly Leu Ser Arg His Arg Ala Ser Phe Leu Gly Gly Arg Arg 310 315 Arg Gly Gly Ala Leu Gln Arg Arg Glu Val Ser Ser Ser Ser Asn Leu 325 330 335 Glu Glu Ile Phe Asn Trp Lys Arg Ser Tyr Thr Arg Leu Met Ala Ala 340 345 350 Ala Ala Gly Ala Ala Ala Pro Gly Ser Arg Glu Pro Gln Asp Arg 355 360 365 Pro Glu Cys Gly Ala Gly His Pro Gly Pro Arg Tyr Tyr Arg His Pro 375 380 Glu Arg Trp Leu Leu Arg Pro Glu Ala Phe Leu Gly Pro Leu Arg Thr 385 390 395 400 Arg Ala Pro Ser Ala Glu Asp Ser Gln Arg Glu Arg Pro Ala Ala Arg 405 410 Ser Gly Pro Glu Met Arg Val Arg Tyr Pro Val Val Ala Ala Val Leu 425 430 420 Ala Pro Tyr Leu Ala Leu Ser Gln Asp Pro Met Val Lys Ser Ser Ala 435 440 445 Ser Gly Gln Gly Ala Ser Gly Ser Tyr Asn His Val Arg Glu Glu Met 455 460 Leu Ile Lys Ala Gly Gly Ala Met Ser Arg Arg Val Val Arg Gln Ser 475 470 Lys Phe Arg His Val Phe Gly Gln Ala Ala Lys Ala Asp Gln Ala Tyr 485 490 Glu Asp Ile Arg Val Ser Lys Val Thr Trp Asp Ser Ser Phe Cys Ala 500 505 Val Asn Pro Lys Phe Leu Ala Ile Ile Val Glu Ala Gly Gly Gly 520 Ala Phe Ile Val Leu Pro Leu Ala Lys 535

<210> 2609 <211> 81 <212> PRT <213> Homo sapiens

<400> 2609

Pro Pro Arg Pro Gly Arg Ser His Arg Lys Arg Lys Leu Val Ser Thr 65 70 75 80

81

<210> 2610 <211> 209 <212> PRT

# <213> Homo sapiens

<400> 2610 Gln Arg Ser Cys Leu Cys Ser Ala Ile Glu Lys Asp Gly Gly Asp Val Lys Ala Leu Tyr Arg Arg Ser Gln Ala Leu Glu Lys Leu Gly Arg Leu 25 Asp Gln Ala Val Leu Asp Leu Gln Arg Cys Val Ser Leu Glu Pro Lys 35 40 Asn Lys Val Phe Gln Glu Ala Leu Arg Asn Ile Gly Gly Gln Ile Gln 55 Glu Lys Val Arg Tyr Met Ser Ser Thr Asp Ala Lys Val Glu Gln Met 70 Phe Gln Ile Leu Leu Asp Pro Glu Glu Lys Gly Thr Glu Lys Lys Gln 85 90 95 Lys Ala Ser Gln Asn Leu Val Val Leu Ala Arg Glu Asp Ala Gly Ala . 100 105 Glu Lys Ile Phe Arg Ser Asn Gly Val Gln Leu Leu Gln Arg Leu Leu 120 125 Asp Met Gly Glu Thr Asp Leu Met Leu Ala Ala Leu Arg Thr Leu Val 130 135 140 Gly Ile Cys Ser Glu His Gln Ser Arg Thr Val Ala Thr Leu Ser Ile 155 150 Leu Gly Thr Arg Arg Val Val Ser Ile Leu Gly Val Glu Ser Gln Ala 165 170 Val Ser Leu Ala Ala Cys His Leu Leu Gln Val Met Phe Asp Ala Leu 185 190 Lys Glu Gly Val Lys Lys Gly Phe Arg Gly Lys Glu Gly Ala Ile Ile 200 Val 209

<210> 2611 <211> 146 <212> PRT

<213> Homo sapiens

<400> 2611 Gly Phe Arg Gly Ala Glu Ala Pro Gly Ala Ala Gln Ala Pro Lys Lys Lys Lys Pro Arg Pro Thr Glu Gly Gly Pro Gly Ala Gly Ser Gly Arg 20 25 Gly Lys Asp Pro Tyr Arg Gly Pro Thr Leu Leu His Gln Pro Lys Pro
35 40 45 45 Pro Lys Asp Glu Phe Leu Ser Ser Leu Glu Ser Tyr Glu Ile Ala Phe 55 . 60 Pro Thr Arg Val Asp His Asn Gly Ala Leu Leu Ala Phe Ser Pro Pro 70 75 Pro Pro Gln Arg Gln Arg Gly Thr Gly Ala Thr Ala Glu Ser Arg Leu Phe Tyr Lys Glu Ala Ser Pro Ser Thr His Phe Leu Leu Asn Leu 100 105 Thr Arg Ser Ser Arg Leu Leu Ala Gly His Val Ser Val Glu Tyr Trp 120 125 Thr Arg Glu Gly Leu Ala Trp Gln Arg Ala Asp Arg Pro His Cys Leu 135 130 Tyr Ala 145 146

<210> 2612 <211> 89 <212> PRT <213> Homo sapiens

<400> 2612

<210> 2613 <211> 80 <212> PRT <213> Homo sapiens

<210> 2614 <211> 72 <212> PRT <213> Homo sapiens

<210> 2615 <211> 173 <212> PRT <213> Homo sapiens

<400> 2615 Phe Val Ala Ser Glu Val Ser Lys Met Pro Val Pro Ala Ser Trp Pro 5 10 His Pro Pro Gly Pro Phe Leu Leu Leu Thr Leu Leu Leu Gly Leu Thr 20 25 30 Glu Val Ala Gly Glu Glu Leu Gln Met Ile Gln Pro Glu Lys Leu · 40 35 Leu Leu Val Thr Val Gly Lys Thr Ala Thr Leu His Cys Thr Val Thr 55 Ser Leu Leu Pro Val Gly Pro Val Leu Trp Phe Arg Gly Val Gly Pro 70 75 Gly Arg Glu Leu Ile Tyr Asn Gln Lys Glu Gly His Phe Pro Arg Val 85 90 Thr Thr Val Ser Asp Leu Thr Lys Arg Asn Asn Met Asp Phe Ser Ile 100 105 110 Arg Ile Ser Ser Ile Thr Pro Ala Asp Val Gly Thr Tyr Tyr Cys Val 120 125 Lys Phe Arg Lys Gly Ser Pro Asp His Val Glu Phe Lys Ser Gly Ala 130 135 140 Gly Thr Glu Leu Ser Val Arg Gly Glu Tyr Ser Val Gly Phe Leu Ser 145 150 155 Gln Val Trp Trp Leu Ser Ser His Pro Phe Met Asn 165 170 173

<210> 2616 <211> 47 <212> PRT <213> Homo sapiens

<210> 2617 <211> 223 <212> PRT <213> Homo sapiens

Phe Leu Trp Gly Val Ala His Ser Ile Asn Glu Leu Ser Gln Val Pro 75 Pro Pro Val Met Leu Leu Pro Asp Asp Phe Lys Ala Ser Ser Lys Ile 85 90 Lys Val Asn Asn His Leu Phe His Arg Glu Asn Leu Pro Ser His Phe 105 Lys Phe Lys Glu Tyr Cys Pro Gln Val Phe Arg Asn Leu Arg Asp Arg 115 120 Phe Gly Ile Asp Asp Gln Asp Tyr Leu Val Ser Leu Thr Arg Asn Pro 135 140 Pro Ser Glu Ser Glu Gly Ser Asp Gly Arg Phe Leu Ile Ser Tyr Asp 150 155 Arg Thr Leu Val Ile Lys Glu Val Ser Ser Glu Asp Ile Ala Asp Met 170 165 175 His Ser Asn Leu Ser Asn Tyr His Gln Val Arg Pro Leu Ser Ser Pro 180 185 190 Ile Leu Ser Leu Ser Ser Leu Leu Thr Tyr Ser Ser Ala Ile Val Ser 205 200 Asn Arg Cys Gln Leu Gly Arg Lys Leu Ile Gly Arg Glu Asn Pro 215 220

<210> 2618 <211> 69 <212> PRT <213> Homo sapiens

<210> 2619 <211> 147 <212> PRT <213> Homo sapiens

<400> 2619 Phe Gly Met Leu Lys Asn Lys Gly His Ser Ser Lys Lys Asp Asn Leu 10 Ala Val Asn Ala Val Ala Leu Gln Asp His Ile Leu His Asp Leu Gln 20 25 Leu Arg Asn Leu Ser Val Ala Asp His Ser Lys Thr Gln Val Gln Lys Lys Glu Asn Lys Ser Leu Lys Arg Asp Thr Lys Ala Ile Ile Asp Thr 55 Gly Leu Lys Lys Thr Thr Gln Cys Pro Lys Leu Glu Asp Ser Glu Lys 70 75 Glu Tyr Val Leu Asp Pro Lys Pro Pro Pro Leu Thr Leu Ala Gln Lys 85 90 Leu Gly Leu Ile Gly Pro Pro Pro Pro Pro Leu Ser Ser Asp Glu Trp 105

Glu Lys Val Lys Gln Arg Ser Leu Leu Gln Gly Asp Ser Val Gln Pro 125 120 Cys Pro Ile Cys Lys Glu Glu Phe Glu Leu Arg Pro Gln Val Phe Ser 130 135 Ile Arg Gly 145 147

<210> 2620 <211> 195 <212> PRT <213> Homo sapiens

<400> 2620 Arg Val Asp Asp Phe Val Arg Pro Leu Pro Pro Gly Leu Met Ser Arg 10 Ser Arg Ala Ser Ile His Arg Gly Ser Ile Pro Ala Met Ser Tyr Ala 20 25 Pro Phe Arg Asp Val Arg Gly Pro Ser Thr His Arg Thr Gln Tyr Val 40 His Ser Pro Tyr Asp Arg Pro Gly Trp Asn Pro Arg Phe Cys Ile Ile Ser Gly Asn Gln Leu Leu Met Leu Asp Glu Asp Glu Ile His Pro Leu 75 70 Leu Ile Arg Asp Arg Arg Ser Glu Ser Ser Arg Asn Lys Leu Leu Arg 85 90 Arg Thr Val Ser Val Pro Val Glu Gly Arg Pro His Gly Glu His Glu 100 105 Tyr His Leu Gly Arg Ser Arg Arg Lys Ser Val Pro Gly Gly Lys Gln 120 125 Tyr Ser Met Glu Gly Ala Pro Ala Ala Pro Phe Arg Pro Ser Gln Gly 130 135 140 Phe Leu Ser Arg Arg Leu Lys Ser Ser Ile Lys Arg Thr Lys Ser Gln 150 155 160 Pro Lys Leu Asp Arg Thr Ser Ser Phe Arg Gln Ile Leu Pro Arg Phe 165 170 175 Arg Ser Ala Asp His Asp Arg Tyr Arg Gly Trp Ser Met Trp Asp Glu

<210> 2621 <211> 51 <212> PRT <213> Homo sapiens

Ile Asp Val 195

<400> 2621 Leu Pro Ala Pro Pro Asn Leu Ser Pro Arg Leu Ser Phe Gly Phe Gln 10 Phe Pro Gly Gly Asn Asp Asn Tyr Leu Thr Ile Thr Gly Pro Ser His 25 Pro Phe Leu Ser Gly Ala Glu Val Ser Gln Ser Cys Arg Arg Arg Gly 35 Gly Arg Ala 50 51

<210> 2622

<211> 127 <212> PRT <213> Homo sapiens

<400> 2622 Ser Ala Val Thr Ile Ser Trp Lys Trp Arg Ser Val Met Gly Ile Gln 5 10 Thr Ser Pro Ala Leu Leu Ala Ser Leu Gly Ala Gly Leu Val Thr Leu 25 Leu Gly Leu Ala Val Gly Ser Tyr Leu Val Arg Arg Ser Arg Arg Pro 35 40 45 Gln Val Thr Leu Leu Asp Pro Asn Glu Lys Asp Leu Leu Arg Leu Ile 55 . 60 Asp Lys Thr Leu Ser Ala Arg Ser Pro Cys Lys His Ile Tyr Leu Ser 70 Thr Arg Ile Asp Gly Ser Leu Ser Ile Arg Pro Tyr Thr Pro Val Thr 90 85 Ser Asp Glu Asp Gln Gly Tyr Val Asp Ile Asp Ile Lys Val Tyr Leu 100 105 Lys Gly Val His Pro Thr Phe Pro Glu Gly Gly Lys Met Ser His

<210> 2623 <211> 446 <212> PRT <213> Homo sapiens

<400> 2623 Met Ala Ala Arg Thr Leu Gly Arg Gly Val Gly Arg Leu Leu Gly Ser 5 10 Leu Arg Gly Leu Ser Gly Gln Pro Ala Arg Pro Pro Cys Gly Val Ser Ala Pro Arg Arg Ala Ala Ser Gly Pro Ser Gly Ser Ala Pro Ala Val 35 40 45 Ala Ala Ala Ala Gln Pro Gly Ser Tyr Pro Ala Leu Ser Ala Gln 60 55 Ala Ala Arg Glu Pro Ala Ala Phe Trp Gly Pro Leu Ala Arg Asp Thr 70 75 Leu Val Trp Asp Thr Pro Tyr His Thr Val Trp Asp Cys Asp Phe Ser 90 85 Thr Gly Lys Ile Gly Trp Phe Leu Gly Gly Gln Leu Asn Val Ser Val 105 100 110 Asn Cys Leu Asp Gln His Val Arg Lys Ser Pro Glu Ser Val Ala Leu 120 Ile Trp Glu Arg Asp Glu Pro Gly Thr Glu Val Arg Ile Thr Tyr Arg 135 140 Glu Leu Leu Glu Thr Thr Cys Arg Leu Ala Asn Thr Leu Lys Arg His 155 150 Gly Val His Arg Gly Asp Arg Val Ala Ile Tyr Met Pro Val Ser Pro 170 165 Leu Ala Val Ala Ala Met Leu Ala Cys Ala Arg Ile Gly Ala Val His 185 190 Thr Val Ile Phe Ala Gly Phe Ser Ala Glu Ser Leu Ala Gly Arg Ile 200 205 Asn Asp Ala Lys Cys Lys Val Val Ile Thr Phe Asn Gln Gly Leu Arg Gly Gly Arg Val Val Glu Leu Lys Lys Ile Val Asp Glu Ala Val Lys 230 235 His Cys Pro Thr Val Gln His Val Leu Val Ala His Arg Thr Asp Asn

Lys Val His Met Gly Asp Leu Asp Val Pro Leu Glu Gln Glu Met Ala 265 Lys Glu Asp Pro Val Cys Ala Pro Glu Ser Met Gly Ser Glu Asp Met 275 280 285 Leu Phe Met Leu Tyr Thr Ser Gly Ser Thr Gly Met Pro Lys Gly Ile 295 300 Val His Thr Gln Ala Gly Tyr Leu Leu Tyr Ala Ala Leu Thr His Lys 310 315 Leu Val Phe Asp His Gln Pro Gly Asp Ile Phe Gly Cys Val Ala Asp 325 330 Ile Gly Trp Ile Thr Gly His Ser Tyr Val Val Tyr Gly Pro Leu Cys 340 345 350 Asn Gly Ala Thr Ser Val Leu Phe Glu Ser Thr Pro Val Tyr Pro Asn 355 360 Ala Gly Arg Tyr Trp Glu Thr Val Glu Arg Leu Lys Ile Asn Gln Phe 380 375 Tyr Gly Ala Pro Thr Ala Val Arg Leu Leu Leu Lys Tyr Gly Asp Ala 390 395 Trp Val Lys Lys Tyr Asp Arg Ser Ser Leu Arg Thr Leu Gly Ser Val 405 410 Gly Glu Pro Ile Asn Cys Glu Ala Trp Glu Trp Leu His Arg Val Val 425 Gly Asp Ser Arg Cys Thr Leu Val Asp Thr Trp Trp Gln Thr 445 446 440

<210> 2624 <211> 1250 <212> PRT <213> Homo sapiens

<400> 2624 Phe Arg Pro Gln Gly Thr Pro Arg Ser Pro Ala Ser His Val Leu Thr 1 5 10 15 Met Ser Ala Pro Asp Glu Gly Arg Arg Asp Pro Pro Lys Pro Lys Gly 25 Lys Thr Leu Gly Ser Phe Phe Gly Ser Leu Pro Gly Phe Ser Ser Ala 40 Arg Asn Leu Val Ala Asn Ala His Ser Ser Ala Arg Ala Arg Pro Ala 55 60 Ala Asp Pro Thr Gly Ala Pro Ala Ala Glu Ala Ala Gln Pro Gln Ala 70 75 Gln Val Ala Ala His Pro Glu Gln Thr Ala Pro Trp Thr Glu Lys Glu 90 Leu Gln Pro Ser Glu Lys Met Val Ser Gly Ala Lys Asp Leu Val Cys 100 105 110 Ser Lys Met Ser Arg Ala Lys Asp Ala Val Ser Ser Gly Val Ala Ser 115 120 125 Val Val Asp Val Ala Lys Gly Val Val Gln Gly Gly Leu Asp Thr Thr 135 140 Arg Ser Ala Leu Thr Gly Thr Lys Glu Val Val Ser Ser Gly Val Thr 150 155 Gly Ala Met Asp Met Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr 165 170 175 Ser Lys Ala Val Leu Thr Gly Thr Lys Asp Thr Val Ser Thr Gly Leu 180 185 190 185 Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Ala Gly Val Asp 195 200 205 Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Thr Thr Gly 215 220 Val Met Gly Ala Val Asn Leu Ala Lys Gly Thr Val Gln Thr Gly Val

Glu Thr Ser Lys Ala Val Leu Thr Gly Thr Lys Asp Ala Val Ser Thr Gly Leu Thr Gly Ala Val Asn Val Ala Arg Gly Ser Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met Asn Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met Asn Val Ala Lys Gly Thr Ile Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met Asn Val Ala Lys Gly Thr Ile . 365 Gln Thr Gly Val Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asn Thr Val Cys Ser Gly Val Thr Gly Ala Val Asn Leu Ala Lys Glu Ala Ile Gln Gly Gly Leu Asp Thr Thr Lys Ser Met Val Met Gly Thr Lys Asp Thr Met Ser Thr Gly Leu Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Met Gln Thr Gly Leu Asn Thr Thr Gln Asn Ile Ala Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Met Asn Leu Ala Arg Gly Thr Ile Gln Thr Gly Val Asp Thr Thr Lys Ile Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Leu Thr Gly Thr Lys Asp Ala Val Ser Thr Gly Leu Thr Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Gly Val Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly Val Thr Ser Ala Val Asn Val Ala Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Val Ile Gly Thr Lys Asp Thr Met Ser Thr Gly Leu Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Val Gln Thr Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Thr Thr Gly Leu Val Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Gly Met Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Ile Tyr Ser Gly Val Thr Ser Ala Val Asn Val Ala Lys Gly Ala Val Gln Thr Gly Leu Lys Thr Thr Gln Asn Ile Ala Thr Gly Thr Lys Asn Thr Phe Gly Ser Gly Val Thr Ser Ala Val Asn Val Ala Lys Gly Ala Ala Gln Thr Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Thr Thr Gly Leu Met Gly Ala Val Asn Val Ala Lys Gly Thr Val Gln Thr Ser Val Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val Cys Ser Gly

Val Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Ile Gln Gly Gly Leu 755 760 Asp Thr Thr Lys Ser Val Leu Thr Gly Thr Lys Asp Ala Val Ser Thr 770 775 780 Gly Leu Thr Gly Ala Val Lys Leu Ala Lys Gly Thr Val Gln Thr Gly 790 795 Met Asp Thr Thr Lys Thr Val Leu Thr Gly Thr Lys Asp Ala Val Cys 805 810 Ser Gly Val Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Val Gln Met 820 825 Gly Val Asp Thr Ala Lys Thr Val Leu Thr Gly Thr Lys Asp Thr Val 840 Cys Ser Gly Val Thr Gly Ala Ala Asn Val Ala Lys Gly Ala Val Gln 850 855 860 Thr Gly Leu Lys Thr Thr Gln Asn Ile Ala Thr Gly Thr Lys Asn Thr 870 875 Leu Gly Ser Gly Val Thr Gly Ala Ala Lys Val Ala Lys Gly Ala Val 885 890 895 Gln Gly Gly Leu Asp Thr Thr Lys Ser Val Leu Thr Gly Thr Lys Asp 905 900 91.0 Ala Val Ser Thr Gly Leu Thr Gly Ala Val Asn Leu Ala Lys Gly Thr 920 915 925 Val Gln Thr Gly Val Asp Thr Ser Lys Thr Val Leu Thr Gly Thr Lys 935 940 Asp Thr Val Cys Ser Gly Val Thr Gly Ala Val Asn Val Ala Lys Gly 950 955 Thr Val Gln Thr Gly Val Asp Thr Ala Lys Thr Val Leu Ser Gly Ala 965 970 975 Lys Asp Ala Val Thr Thr Gly Val Thr Gly Ala Val Asn Val Ala Lys 980 985 990 Gly Thr Val Gln Thr Gly Val Asp Ala Ser Lys Ala Val Leu Met Gly 1000 1005 Thr Lys Asp Thr Val Phe Ser Gly Val Thr Gly Ala Met Ser Met Ala 1015 1020 Lys Gly Ala Val Gln Gly Gly Leu Asp Thr Thr Lys Thr Val Leu Thr 1030 1035 1040 1025 Gly Thr Lys Asp Ala Val Ser Ala Gly Leu Met Gly Ser Gly Asn Val 1045 1050 1055 Ala Thr Gly Ala Thr His Thr Gly Leu Ser Thr Phe Gln Asn Trp Leu 1065 1070 Pro Ser Thr Pro Ala Thr Ser Trp Gly Gly Leu Thr Ser Ser Arg Thr 1075 1080 1085 Thr Asp Asn Gly Gly Glu Gln Thr Ala Leu Ser Pro Gln Glu Ala Pro 1090 1095 1100 Phe Ser Gly Ile Ser Thr Pro Pro Asp Val Leu Ser Val Gly Pro Glu 1110 1115 1120 Pro Ala Trp Glu Ala Ala Ala Thr Thr Lys Gly Leu Ala Thr Asp Val 1125 1130 1135 Ala Thr Phe Thr Gln Gly Ala Ala Pro Gly Arg Glu Asp Thr Gly Leu 1140 1145 1150 Leu Ala Thr Thr His Gly Pro Glu Glu Ala Pro Arg Leu Ala Met Leu 1155 1160 1165 Gln Asn Glu Leu Glu Gly Leu Gly Asp Ile Phe His Pro Met Asn Ala 1180 1175 Glu Glu Gln Ala Gln Leu Ala Ala Ser Gln Pro Gly Pro Lys Val Leu 1190 1195 Ser Ala Glu Gln Gly Ser Tyr Phe Val Arg Leu Gly Asp Leu Gly Pro 1205 1210 1215 Ser Phe Arg Gln Arg Ala Phe Glu His Ala Val Ser His Leu Gln His 1225 1230 Gly Gln Phe Gln Ala Arg Asp Thr Leu Ala Gln Leu Gln Asp Cys Phe 1240 1245 Arg Leu 1250

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<210> 2625
<211> 97
<212> PRT
<213> Homo sapiens
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<400> 2625 Thr Ile Leu Ala Arg Lys Lys Glu Lys Thr Cys Pro Cys Lys Lys Glu Ile Gly Arg Asn Ser Arg Ser Gly Met Tyr Ser Arg Lys Ala Met Tyr 20 25 Lys Arg Lys Tyr Ser Ala Ala Asn Thr Lys Val Glu Lys Lys Lys 35 40 Glu Lys Val Leu Ala Pro Val Thr Lys Pro Val Gly Gly Asp Lys Asn 55 Gly Gly Thr Arg Val Val Lys Leu Pro Thr Met Pro Arg Tyr Tyr Pro 70 75 Thr Glu Asp Val Pro Arg Lys Leu Leu Ser His Gly Lys Lys Pro Phe 85 90 Ser 97

<210> 2626 <211> 167 <212> PRT <213> Homo sapiens

<400> 2626 Gly Gly Ser Leu Arg Phe Ser Pro Pro Arg Val Pro Ser Cys Ser Arg 10 Val Phe Cys Pro Val Pro Pro Gly Gly Cys Gly Leu Pro Ser Pro Met 25 Ser Ala Ser Arg Pro Gln Ser Pro Thr Thr Pro Trp Cys Leu Pro Arg 35 40 Arg Tyr Met Lys His Lys Arg Asp Asp Gly Pro Glu Lys Gln Glu Asp 55 60 Glu Ala Val Asp Val Thr Pro Val Met Thr Cys Val Phe Val Val Met 75 70 Cys Cys Ser Met Leu Val Leu Leu Tyr Tyr Phe Tyr Asp Leu Leu Val 90 Tyr Val Val Ile Gly Ile Phe Cys Leu Ala Ser Ala Thr Gly Leu Tyr 100 105 110 Ser Cys Leu Ala Pro Cys Val Arg Arg Leu Pro Phe Gly Lys Cys Arg 120 125 Ile Pro Asn Asn Ser Leu Pro Tyr Phe His Lys Arg Pro Gln Ala Arg 135 140 Met Leu Leu Leu Ala Leu Phe Cys Val Ala Val Ser Val Val Trp Gly 155 150 Val Phe Arg Asn Glu Asp Gln 165

<210> 2627 <211> 273 <212> PRT <213> Homo sapiens

<400> 2627 Tyr Ser Arg Phe Thr Val Pro Leu Pro Ala Thr Met Ala Ser Ser Glu 5 10 Val Ala Arg His Leu Leu Phe Gln Ser His Met Ala Thr Lys Thr Thr 20 25 Cys Met Ser Ser Gln Gly Ser Asp Asp Glu Gln Ile Lys Arg Glu Asn 40 Ile Arg Ser Leu Thr Met Ser Gly His Val Gly Phe Glu Ser Leu Pro 55 Asp Gln Leu Val Asn Arg Ser Ile Gln Gln Gly Phe Cys Phe Asn Ile 70 Leu Cys Val Gly Glu Thr Gly Ile Gly Lys Ser Thr Leu Ile Asp Thr 85 90 Leu Phe Asn Thr Asn Phe Glu Asp Tyr Glu Ser Ser His Phe Cys Pro 100 105 Asn Val Lys Leu Lys Ala Gln Thr Tyr Glu Leu Gln Glu Ser Asn Val 115 120 Gln Leu Lys Leu Thr Ile Val Asn Thr Val Gly Phe Gly Asp Gln Ile 135 140 Asn Lys Glu Glu Arg Gln Leu Gly Arg Ser Gln Ser Thr Glu Asn Pro 150 155 Gln Lys Tyr Arg Ser Glu Gln His Pro Val Glu Pro Lys Lys Cys Thr 170 165 175 Ser Phe Trp Lys Gly Ala Leu Gly Lys Trp Ala Gly Ile Glu Ser Ser 180 185 Gly Gln Ser Ala Gln Gln Pro Tyr Leu Pro Ile Asn Ser Pro Pro His 195 200 205 Arg Leu Ala Asp Val Ala Asp Val His Leu Phe Ser Ser Val Leu Ser 215 ' 220 Gly Ala Phe Gly Cys Tyr His Leu Asp Val Thr Val Asn Glu Phe Lys 230 235 Lys Gln Gln Asn Arg Asp Glu Gln Glu Gly Tyr Ser Lys Gly Asp Gln 245 250 255 Glu Gln Gly Ser Trp Lys His Gly Ala Asp Pro Leu Arg Gly Gly Glu Met 273

<210> 2628 <211> 151 <212> PRT <213> Homo sapiens

<400> 2628

Arg Ala Phe Asp Val Arg Arg Lys Lys Ser Leu Arg Pro Cys Cys Pro 10 Arg Asp Phe His Ala Gly Cys Leu Thr Val Ser Gly Pro Ser Thr Val 20 25 Met Gly Ala Val Gly Glu Ser Leu Ser Val Gln Cys Arg Tyr Glu Glu 35 40 Lys Tyr Lys Thr Phe Asn Lys Tyr Trp Cys Arg Gln Pro Cys Leu Pro 55 60 Ile Trp His Glu Met Val Glu Thr Gly Gly Ser Glu Gly Val Val Arg 70 75 Ser Asp Gln Val Ile Ile Thr Asp His Pro Gly Asp Leu Thr Phe Thr 85 90 95 90 Val Thr Leu Glu Asn Leu Thr Ala Asp Asp Ala Gly Lys Tyr Arg Cys 105 100 110 Gly Ile Ala Thr Ile Leu Gln Glu Asp Gly Leu Ser Gly Phe Leu Pro 120 125

<210> 2629 <211> 74 <212> PRT <213> Homo sapiens

<210> 2630 <211> 114 <212> PRT <213> Homo sapiens

<400> 2630 Arg Ala Thr Trp His Asn Ala Gly Lys Glu Arg Glu Ala Val Gln Leu 10 Met Ala Gly Ala Glu Lys Arg Val Lys Ala Ser His Ser Phe Leu Arg 20 25 Gly Leu Phe Gly Gly Asn Thr Arg Ile Glu Glu Ala Cys Glu Met Tyr 40 Thr Arg Ala Ala Asn Met Phe Lys Met Ala Lys Asn Trp Ser Ala Ala 55 60 Gly Asn Ala Phe Cys Gln Ala Ala Lys Leu His Met Gln Leu Gln Ser 70 75 Lys His Asp Ser Ala Thr Ser Phe Val Asp Ala Gly Asn Ala Tyr Lys 85 90 Lys Ala Asp Pro Gln Gly Lys Thr Ala Arg His Val Ala Cys Tyr Leu 105 Cys Val 114

<210> 2631 <211> 66 <212> PRT <213> Homo sapiens

Gly Pro Ile Met Ala His Cys Ser Leu Lys Ile Leu Ala Ser Arg Asn
35 40 45

Ser Ala Asp Ser Ala Phe Leu Ser Ala Gly Asp Thr Ser Leu Ser His
50 55 60

Ser Thr
65 66

<210> 2632 <211> 546 <212> PRT <213> Homo sapiens

(213) nomo sapiens

<400> 2632 Ser Ala Ser Ile Ile Ile Arg Gly Asp Lys Arg Ala Ser Gly Glu Val Gly Ile Ala Pro Ser Ser Arg His Ile Leu Ile Gly Glu Pro Ser Ala Lys Tyr Asn Gly Thr Ala Ile Ile Ser Leu Val Arg Gly Pro Gly Ile Leu Gly Glu Val Thr Val Phe Trp Arg Ile Phe Pro Pro Ser Val Gly Glu Phe Ala Glu Thr Ser Gly Lys Leu Thr Met Arg Asp Glu Gln Ser Ala Val Ile Val Val Ile Gln Ala Leu Asn Asp Asp Ile Pro Glu Glu Lys Ser Phe Tyr Glu Phe Gln Leu Thr Ala Val Ser Glu Gly Gly Val Leu Ser Glu Ser Ser Ser Thr Ala Asn Ile Thr Val Val Ala Ser Asp Ser Pro Tyr Gly Arg Phe Ala Phe Ser His Glu Gln Leu Arg Val Ser Glu Ala Gln Arg Val Asn Ile Thr Ile Ile Arg Ser Ser Gly Asp Phe Gly His Val Arg Leu Trp Tyr Lys Thr Met Ser Gly Thr Ala Glu Ala Gly Leu Asp Phe Val Pro Ala Ala Gly Glu Leu Leu Phe Glu Ala Gly Glu Met Arg Lys Ser Leu His Val Glu Ile Leu Asp Asp Tyr Pro Glu Gly Pro Glu Glu Phe Ser Leu Thr Ile Thr Lys Val Glu Leu Gln Gly Arg Gly Tyr Asp Phe Thr Ile Gln Glu Asn Gly Leu Gln Ile Asp Gln Pro Pro Glu Ile Gly Asn Ile Ser Ile Val Arg Ile Ile Ile Met Lys Asn Asp Asn Ala Glu Gly Ile Ile Glu Phe Asp Pro Lys Tyr Thr Ala Phe Glu Val Glu Glu Asp Val Gly Leu Ile Met Ile Pro Val Val Arg Leu His Gly Thr Tyr Gly Tyr Val Thr Ala Asp Phe Ile Ser Gln Ser Ser Ser Ala Ser Pro Gly Gly Val Asp Tyr Ile Leu His Gly Ser Thr Val Thr Phe Gln His Gly Gln Asn Leu Ser Phe Ile Asn Ile Ser Ile Ile Asp Asp Asn Glu Ser Glu Phe Glu Glu Pro Ile Glu Ile Leu Leu Thr Gly Ala Thr Gly Gly Ala Val Leu Gly Arg His Leu Val Ser Arg Ile Ile Ile Ala Lys Ser Asp Ser Pro Phe Gly Val Ile Arg Phe 

Leu Asn Gln Ser Lys Ile Ser Ile Ala Asn Pro Asn Ser Thr Met Ile 390 395 Leu Ser Leu Val Leu Glu Arg Thr Gly Gly Leu Leu Gly Glu Ile Gln 405 410 Val Asn Trp Glu Thr Val Gly Pro Asn Ser Gln Glu Ala Leu Leu Pro 425 Gln Asn Arg Asp Ile Ala Asp Pro Val Ser Gly Leu Phe Tyr Phe Gly 435 440 Glu Gly Glu Gly Gly Val Arg Thr Ile Ile Leu Thr Ile Tyr Pro His 455 Glu Glu Ile Glu Val Glu Glu Thr Phe Ile Ile Lys Leu His Leu Val 470 475 Lys Gly Glu Ala Lys Leu Asp Ser Arg Ala Lys Asp Val Thr Leu Thr 490 485 Ile Gln Glu Phe Gly Asp Pro Asn Gly Val Val Gln Phe Ala Pro Glu 505 510 Thr Leu Ser Lys Lys Thr Tyr Ser Glu Pro Leu Ala Leu Glu Gly Pro 520 525 Leu Leu Ile Thr Phe Phe Val Arg Arg Val Lys Gly Thr Phe Gly Glu 535 540 Ile Met 545 546

<210> 2633 <211> 67

<211> 01

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(67)

<223> Xaa = any amino acid or nothing

<400> 2633

<210> 2634

<211> 189

<212> PRT

<213> Homo sapiens

<400> 2634

Val Thr Ser Leu Met Pro Val Leu Leu Phe Pro Leu Phe Gln Ile Leu 70 75 Asp Ser Arg Gln Val Cys Val Gln Tyr Met Lys Asp Thr Asn Met Leu 85 90 95 Phe Leu Gly Gly Leu Ile Val Ala Val Ala Val Glu Arg Trp Asn Leu 100 . 105 . 110 His Lys Arg Ile Ala Leu Arg Thr Leu Leu Trp Val Gly Ala Lys Pro 120 125 115 Ala Arg Leu Met Leu Gly Phe Met Gly Val Thr Ala Leu Leu Ser Met 130 135 140 Trp Ile Ser Asn Thr Ala Thr Thr Ala Met Met Val Pro Ile Val Glu 150 155 Ala Ile Leu Gln Gln Met Glu Ala Thr Ser Ala Ala Thr Glu Ala Gly 165 170 Leu Glu Leu Val Asp Lys Gly Lys Ala Lys Glu Leu Pro 185

<210> 2635 <211> 146 <212> PRT

. <213> Homo sapiens

<400> 2635 Lys Gln Ser Thr Arg Pro Asp Val Met Thr Leu Tyr Pro Leu His Trp 10 Gln Glu Glu Met Ser Gly Glu Ser Val Val Ser Ser Ala Val Pro Ala 20 25 Ala Ala Thr Arg Thr Thr Ser Phe Lys Gly Thr Ser Pro Ser Ser Lys 35 40 Tyr Val Lys Leu Asn Val Gly Gly Ala Leu Tyr Tyr Thr Thr Met Gln 55 60 Thr Leu Thr Lys Gln Asp Thr Met Leu Lys Ala Met Phe Ser Gly Arg 70 · 75 Met Glu Val Leu Thr Asp Ser Glu Gly Trp Ile Leu Ile Asp Arg Cys 85 90 95 Gly Lys His Phe Gly Thr Ile Leu Asn Tyr Leu Arg Asp Gly Ala Val 105 Pro Leu Pro Glu Ser Arg Arg Glu Ile Glu Glu Leu Leu Ala Glu Ala 120 Lys Tyr Tyr Leu Val Gln Gly Leu Val Glu Glu Cys Gln Ala Ala Leu 130 · 135 Gln Val 145 146

<210> 2636 <211> 191 <212> PRT <213> Homo sapiens

<400> 2636 Arg Pro Arg Gly Arg Gly Ala Trp Ala Gly Pro Gly Gly Asp Tyr Ser 10 Gly Val Arg Arg Gln Gln Arg Arg Arg Thr Arg Ile Ser Gly Ser Gln Arg Gly Ser Asp Ala Ala Gly Thr Met Gly Cys Cys Thr Gly Arg Cys 35 40 45 Ser Leu Ile Cys Leu Cys Ala Leu Gln Leu Val Ser Ala Leu Glu Arg 55

Gln Ile Phe Asp Phe Leu Gly Phe Gln Trp Ala Pro Ile Leu Gly Asn Phe Leu His Ile Ile Val Val Ile Leu Gly Leu Phe Gly Thr Ile Gln Tyr Arg Pro Arg Tyr Ile Met Val Tyr Thr Val Trp Thr Ala Leu Trp 100 105 110 Val Thr Trp Asn Val Phe Ile Ile Cys Phe Tyr Leu Glu Val Gly Gly 115 120 125 Leu Ser Lys Asp Thr Asp Leu Met Thr Phe Asn Ile Ser Val His Arg 135 140 Ser Trp Trp Arg Glu His Gly Pro Gly Cys Val Arg Arg Val Leu Pro 150 155 Pro Ser Ala His Gly Met Met Asp Asp Tyr Thr Tyr Val Ser Val Thr 170 165 Gly Cys Ile Val Asp Phe Gln Tyr Leu Glu Val Ile His Ser Ala 185 180

<210> 2637 <211> 41 <212> PRT <213> Homo sapiens

<210> 2638 <211> 159 <212> PRT <213> Homo sapiens

<400> 2638 Met Glu Glu Glu Asp Glu Ser Arg Gly Lys Thr Glu Glu Ser Gly Glu 10 Asp Arg Gly Asp Gly Pro Pro Asp Arg Asp Pro Thr Leu Ser Pro Ser 25 Ala Phe Ile Leu Arg Ala Ile Gln Gln Ala Val Gly Ser Ser Leu Gln 40 Gly Asp Leu Pro Asn Asp Lys Asp Gly Ser Arg Cys His Gly Leu Arg 55 Trp Arg Arg Cys Arg Ser Pro Arg Ser Glu Pro Arg Ser Gln Glu Ser 65 70 75 80 Gly Gly Thr Asp Thr Ala Thr Val Leu Asp Met Ala Thr Asp Ser Phe 90 85 Leu Ala Gly Leu Val Ser Val Leu Asp Pro Pro Asp Thr Trp Val Pro 100 105 110 Ser Arg Leu Asp Leu Arg Pro Gly Glu Ser Glu Asp Met Leu Glu Leu 120 Val Ala Glu Val Arg Ile Gly Asp Arg Asp Pro Ile Pro Leu Pro Val 135 140 Pro Ser Leu Leu Pro Arg Leu Arg Ala Trp Arg Thr Gly Lys Thr 150 155

<210> 2639 <211> 67 <212> PRT <213> Homo sapiens

<210> 2640 <211> 163 <212> PRT <213> Homo sapiens

<400> 2640 Arg Gly Ala Lys Ala Lys Ser Ala Val Leu Pro Pro Gly Pro Pro Cys 10 Ser Ser Ile Leu Ile Leu Ser Pro Pro Ala Pro Leu Thr Pro Arg Ser Pro Gly Thr Glu Ala Thr Arg Pro Thr Ala Met Ser Lys Ser Leu Lys 40 Lys Lys Ser His Trp Thr Ser Lys Val His Glu Ser Val Ile Gly Arg 55 Asn Pro Glu Gly Gln Leu Gly Phe Glu Leu Lys Gly Gly Ala Glu Asn 70 75 Gly Gln Phe Pro Tyr Leu Gly Glu Val Lys Pro Gly Lys Val Ala Tyr 85 Glu Ser Gly Ser Lys Leu Val Ser Glu Glu Leu Leu Glu Val Asn 100 105 Glu Thr Pro Val Ala Gly Leu Thr Ile Arg Asp Val Leu Ala Val Ile 120 125 Lys His Cys Lys Asp Pro Leu Arg Leu Lys Cys Val Lys Gln Gly Glu 130 135 140 Ser Ser Gly Leu Leu Ser Val Leu Pro Gly Gly Gly Thr Ala Arg Gly 145 150 Ala Gly Gln 163

<210> 2641 <211> 154 <212> PRT <213> Homo sapiens

<210> 2642 <211> 249 <212> PRT <213> Homo sapiens

<400> 2642 Gln Arg Arg Arg Phe Arg Ala Gly Leu Trp Gly Gly His Gly Leu Thr 10 Asp Gly Leu Arg Arg Asn Gly Gly Cys Gly Cys Ser Ala Arg Val Pro 20 25 Arg Val Gly Glu Arg Leu Arg Gly His Arg Cys Pro Asp Pro Leu Cys 35 40 45 Leu Leu Asp Met Leu Phe Leu Ser Phe His Ala Gly Ser Trp Glu 55 Ser Trp Cys Cys Cys Leu Ile Pro Ala Asp Arg Pro Trp Asp Arg 75 70 Gly Gln His Trp Gln Leu Glu Met Ala Asp Thr Arg Ser Val His Glu 85 90 Thr Arg Phe Glu Ala Ala Val Lys Val Ile Gln Ser Leu Pro Lys Asn 105 Gly Ser Phe Gln Pro Thr Asn Glu Met Met Leu Lys Phe Tyr Ser Phe 120 115 125 Tyr Lys Gln Ala Thr Glu Gly Pro Cys Lys Leu Ser Arg Pro Gly Phe 130 135 140 Trp Asp Pro Ile Gly Arg Tyr Lys Trp Asp Ala Trp Ser Ser Leu Gly 145 150 . 155 160 150 155 Asp Met Thr Lys Glu Glu Ala Met Ile Ala Tyr Val Glu Glu Met Lys 165 170 Lys Ile Ile Glu Thr Met Pro Met Thr Glu Lys Val Glu Glu Leu Leu 190 180 185 Arg Val Ile Gly Pro Phe Tyr Glu Ile Val Glu Asp Lys Lys Ser Gly 195 200 205 Arg Ser Ser Asp Ile Thr Ser Asp Leu Gly Asn Val Leu Thr Ser Thr 215 220 Pro Asn Ala Lys Thr Val Asn Gly Lys Ala Glu Ser Ser Asp Ser Gly 225 230 235 Ala Glu Ser Glu Glu Glu Ala Cys

<210> 2643 <211> 329 <212> PRT

#### <213> Homo sapiens

<400> 2643 Pro Leu Met Ser Leu Val Arg Val Val Glu Phe Val Ala Ala Ser Ser 1 5 10 Ala Gln Lys Thr Pro Ser Arg Leu Glu Asn Tyr Tyr Met Val Cys Lys 20 25 Ala Asp Glu Lys Phe Asn Gln Leu Val His Phe Leu Arg Asn His Lys Gln Glu Lys His Leu Val Phe Phe Arg Tyr Ser Ser Gly Leu Cys Gly 55 Arg Gly Ile Arg Asp Ser Ala Arg Met Cys Ser Thr Cys Ala Cys Val 70 75 Glu Tyr Tyr Gly Lys Ala Leu Glu Val Leu Val Lys Gly Val Lys Ile 85 Met Cys Ile His Gly Lys Met Lys Tyr Lys Arg Asn Lys Ile Phe Met 105 110 Glu Phe Arg Lys Leu Gln Ser Gly Ile Leu Val Cys Thr Asp Val Met 115 120 125 Ala Arg Gly Ile Asp Ile Pro Glu Val Asn Trp Val Leu Gln Tyr Asp 135 140 Pro Pro Ser Asn Ala Ser Ala Phe Val His Arg Cys Gly Arg Thr Ala 150 155 Arg Ile Gly His Gly Gly Ser Ala Leu Val Phe Leu Leu Pro Met Glu 170 175 165 Glu Ser Tyr Ile Asn Phe Leu Ala Ile Asn Gln Lys Cys Pro Leu Gln 180 185 190 Glu Met Lys Pro Gln Arg Asn Thr Ala Asp Leu Leu Pro Lys Leu Lys 200 195 205 Ser Met Ala Leu Ala Asp Arg Ala Val Phe Glu Lys Gly Met Lys Ala 215 220 Phe Val Ser Tyr Val Gln Ala Tyr Ala Lys His Glu Cys Asn Leu Ile 230 235 Phe Arg Leu Lys Asp Leu Asp Phe Ala Ser Leu Ala Arg Gly Phe Ala 245 250 Leu Leu Arg Met Pro Lys Met Pro Glu Leu Arg Gly Lys Gln Phe Pro 260 265 Asp Phe Val Pro Val Asp Val Asn Thr Asp Thr Ile Pro Phe Lys Asp 280 Lys Ile Arg Glu Lys Gln Arg Gln Lys Leu Leu Glu Gln Gln Arg Arg 295 300 Glu Lys Thr Glu Asn Glu Gly Arg Arg Lys Phe Ile Lys Asn Lys Ala 310 315 Trp Ser Lys Gln Lys Ala Lys Lys Lys 325 329

<210> 2644 <211> 317 <212> PRT <213> Homo sapiens

Gln Leu Leu Phe Leu Leu Ser Val Leu Gly Leu Phe Gly Leu Ala Phe Ala Phe Ile Ile Glu Leu Asn Gln Gln Thr Ala Pro Val Arg Tyr Phe 85 90 Leu Phe Gly Val Leu Phe Ala Leu Cys Phe Ser Cys Leu Leu Ala His 100 105 Ala Ser Asn Leu Val Lys Leu Val Arg Gly Cys Val Ser Phe Ser Trp 115 120 125 Thr Thr Ile Leu Cys Ile Ala Ile Gly Cys Ser Leu Leu Gln Ile Ile 135 140 Ile Ala Thr Glu Tyr Val Thr Leu Ile Met Thr Arg Gly Met Met Phe 150 155 Val Asn Met Thr Pro Cys Gln Leu Asn Val Asp Phe Val Val Leu Leu 165 170 Val Tyr Val Leu Phe Leu Met Ala Leu Thr Phe Phe Val Ser Lys Ala 185 190 180 Thr Phe Cys Gly Pro Cys Glu Asn Trp Lys Gln His Gly Arg Leu Ile 195 200 205 Phe Ile Thr Val Leu Phe Ser Ile Ile Ile Trp Val Val Trp Ile Ser 215 220 Met Leu Leu Arg Gly Asn Pro Gln Phe Gln Arg Gln Pro Gln Trp Asp 230 235 Asp Pro Val Val Cys Ile Ala Leu Val Thr Asn Ala Trp Val Phe Leu 245 250 Leu Leu Tyr Ile Val Pro Glu Leu Cys Ile Leu Tyr Arg Ser Cys Arg 260 265 270 Gln Glu Cys Pro Leu Gln Gly Asn Ala Cys Pro Val Thr Ala Tyr Gln 280 275 His Ser Phe Gln Val Glu Asn Gln Glu Leu Ser Arg Asp Lys Trp Lys 290 295 300 Val Leu Leu Asn Ser Asp Phe Leu Ser His Ser Gly Ala 310

<210> 2645 <211> 47 <212> PRT <213> Homo sapiens

<210> 2646 <211> 183 <212> PRT <213> Homo sapiens

Leu Arg Trp Leu Gln Ala Arg Ser Phe Asp Leu Gln Lys Ser Glu Asp 55 60 Met Leu Arg Lys His Met Glu Phe Arg Lys Gln Gln Asp Leu Ala Asn 70 75 Ile Leu Ala Trp Gln Pro Pro Glu Val Val Arg Leu Tyr Asn Ala Asn 85 90 95 Gly Ile Cys Gly His Asp Gly Glu Gly Ser Pro Val Trp Tyr His Ile 100 105 110 Val Gly Ser Gln Asp Pro Lys Gly Leu Leu Ser Ala Ser Lys Gln 115 120 125 Glu Leu Leu Arg Asp Ser Phe Arg Ser Cys Glu Leu Leu Leu Arg Glu 140 130 135 Cys Glu Leu Gln Ser Gln Lys Leu Gly Lys Arg Val Glu Lys Ile Ile 145 150 155 160 Ala Ile Phe Gly Leu Glu Gly Leu Gly Leu Arg Asp Leu Trp Lys Pro 165 170 Gly Ile Glu Leu Leu Gln Glu 180 183

<210> 2647 <211> 120 <212> PRT

<213> Homo sapiens

<221> misc_feature
<222> (1)...(120)

<223> Xaa = any amino acid or nothing

<400> 2647 Met Val Ser Ser Cys Cys Gly Ser Val Cys Ser Asp Gln Gly Cys Gly

1 10 15 Gln Asp Leu Cys Gln Glu Thr Cys Cys Arg Pro Ser Cys Cys Glu Thr 25 Thr Cys Cys Arg Thr Thr Cys Cys Arg Pro Ser Cys Cys Val Ser Ser 35 40 45 Cys Cys Arg Pro Gln Cys Cys Gln Ser Val Cys Cys Gln Pro Thr Cys 55 Ser Arg Pro Ser Cys Cys Gln Thr Thr Cys Cys Arg Thr Thr Cys Tyr 70 75 Arg Pro Ser Cys Cys Val Ser Ser Cys Cys Arg Pro Gln Cys Cys Gln 85 90 Pro Val Cys Cys Gln Pro Thr Cys Cys Arg Pro Ser Cys Cys Glu Thr 100 Thr Cys Cys His Pro Xaa Cys Cys 120

<210> 2648 <211> 120 <212> PRT <213> Homo sapiens

 Met Ser Arg Ile Leu Ala Arg His Gln Leu Val Thr Lys Ile Gln Gln 50
 55
 60

 Glu Ile Glu Ala Lys Glu Ala Cys Asp Trp Leu Arg Ala Ala Gly Phe 65
 70
 75
 80

 Pro Gln Tyr Ala Gln Leu Tyr Glu Asp Ser Gln Phe Pro Ile Asn Ile 85
 90
 95

 Val Ala Val Lys Asn Asp His Asp Phe Leu Glu Lys Asp Leu Gly Glu 100
 105
 110

 Pro Leu Cys Arg Arg Leu Asn Thr 115
 120

<210> 2649 <211> 131 <212> PRT <213> Homo sapiens

<400> 2649 Pro Arg Phe Ser Glu Leu Val Asp Gly Arg Gly Arg Val Ser Ala Arg 5 10 Phe Gly Gly Ser Pro Ser Lys Ala Ala Thr Val Arg Ser Gln Pro Thr 25 Ala Ser Ala Gln Leu Glu Asn Met Glu Glu Ala Pro Lys Arg Val Ser 35 40 Leu Ala Leu Gln Leu Pro Glu His Gly Ser Lys Asp Ile Gly Asn Val 55 Pro Gly Asn Cys Ser Glu Asn Pro Cys Gln Asn Gly Gly Thr Cys Val Pro Gly Ala Asp Ala His Ser Cys Asp Cys Gly Pro Gly Phe Lys Gly 85 Arg Arg Cys Glu Leu Ala Cys Ile Lys Val Ser Arg Pro Cys Thr Arg 105 110 Leu Phe Ser Glu Thr Lys Ala Phe Pro Val Trp Glu Gly Gly Val Cys 115 His His Val 130 131

<210> 2650 <211> 98 <212> PRT <213> Homo sapiens

<210> 2651 <211> 2515 <212> PRT <213> Homo sapiens

<400> 2651 Pro Gly Ile Arg Val Gly Ile Thr Ser Gln Thr Gly Leu Ser Ser Asn Leu Gln Glu Asn Cys Ser Lys Leu Ala Phe Ile Ser Ser His Gly Thr Glu Lys Gln Leu Gln Cys Met Pro Met Glu Gly Arg Gly Arg Ala Ser Ser Ser Ile Ser Asp Leu Gln Gly Lys Gly Phe Glu Lys Gly Thr Gly Glu Lys His Val Pro Gly Val Gly Ser Ala Arg His Ser Pro Gln Ala Ser Ala Gly Gly Ser Pro Trp Gln Arg Gly Lys Ala Gln Thr Arg Trp Leu Gly Lys Pro Asp Pro Gly Arg Lys Arg Arg Arg Gly Ser Pro Gln Glu Glu Gly Gly Leu Arg Val Ser Ala Ala Ala Arg Leu Leu Cys Ser Gly Ala Asn Arg Cys Lys Val Leu Val Arg Gln Asn Ser Thr Pro Asn Thr Gln Gln Pro Ala Val His Pro Ser Thr Pro Pro Ser Arg Pro Leu 150 155 Pro Gln Ala Gly Arg Cys Leu Val Ala Pro Leu Arg Pro His Pro Asp Trp Val Ala Ala Lys Thr Leu Ala Lys Ala Leu Arg Ala Pro Gly Lys Pro Trp Arg Leu Ala Ala Pro Ser Pro Leu Gly Asp Leu Gly Ala Pro Gly Leu Pro Gly Pro Ser Thr Ala Pro Arg Thr Leu Ser Val Glu Glu 215 220 Pro Gly Val Glu Cys Asn Gln Leu Cys Leu Tyr Ala Asp Val Thr Asp Pro Val Leu Cys Leu Gly Gln Lys Asp Pro Gly Val Glu Gly Lys His Cys Glu Lys Glu Lys Ile Ser Ser Lys Glu Leu Lys His Val His Ala Lys Ser Glu Pro Ser Lys Pro Ala Arg Arg Leu Ser Glu Ser Leu His Val Val Asp Glu Asn Lys Asn Glu Ser Lys Ile Glu Arg Glu His Lys Arg Arg Thr Ser Thr Pro Val Ile Met Glu Gly Val Gln Glu Glu Thr Asp Thr Arg Asp Val Lys Arg Gln Val Glu Arg Ser Glu Ile Cys Thr Glu Glu Pro Gln Lys Gln Lys Ser Thr Leu Lys Asn Glu Lys His Leu Lys Lys Asp Asp Ser Glu Thr Pro His Leu Lys Ser Leu Leu Lys Lys Glu Val Lys Ser Ser Lys Glu Lys Pro Glu Arg Glu Lys Thr Pro 375 . 380 Ser Glu Asp Lys Leu Ser Val Lys His Lys Tyr Lys Gly Asp Cys Met 390 395 His Lys Thr Gly Asp Glu Thr Glu Leu His Ser Ser Glu Lys Gly Leu Lys Val Glu Glu Asn Ile Gln Lys Gln Ser Gln Gln Thr Lys Leu Ser Ser Asp Asp Lys Thr Glu Arg Lys Ser Lys His Arg Asn Glu Arg Lys

Leu Ser Val Leu Gly Lys Asp Gly Lys Pro Val Ser Glu Tyr Ile Ile Lys Thr Asp Glu Asn Val Arg Lys Glu Asn Asn Lys Lys Glu Arg Arg Leu Ser Ala Glu Lys Thr Lys Ala Glu His Lys Ser Arg Arg Ser Ser 485 . Asp Ser Lys Ile Gln Lys Asp Ser Leu Gly Ser Lys Gln His Gly Ile Thr Leu Gln Arg Arg Ser Glu Ser Tyr Ser Glu Asp Lys Cys Asp Met Asp Ser Thr Asn Met Asp Ser Asn Leu Lys Pro Glu Glu Val Val His Lys Glu Lys Arg Arg Thr Lys Ser Leu Leu Glu Glu Lys Leu Val Leu Lys Ser Lys Ser Lys Thr Gln Gly Lys Gln Val Lys Val Val Glu Thr Glu Leu Gln Glu Gly Ala Thr Lys Gln Ala Thr Thr Pro Lys Pro Asp Lys Glu Lys Asn Thr Glu Glu Asn Asp Ser Glu Lys Gln Arg Lys Ser Lys Val Glu Asp Lys Pro Phe Glu Glu Thr Gly Val Glu Pro Val Leu Glu Thr Ala Ser Ser Ser Ala His Ser Thr Gln Lys Asp Ser Ser His Arg Ala Lys Leu Pro Leu Ala Lys Glu Lys Tyr Lys Ser Asp Lys Asp Ser Thr Ser Thr Arg Leu Glu Arg Lys Leu Ser Asp Gly His Lys Ser Arg Ser Leu Lys His Ser Ser Lys Asp Ile Lys Lys Lys Asp Glu Asn Lys Ser Asp Asp Lys Asp Gly Lys Glu Val Asp Ser Ser His Glu Lys Ala Arg Gly Asn Ser Ser Leu Met Glu Lys Lys Leu Ser Arg Arg Leu Cys Glu Asn Arg Arg Gly Ser Leu Ser Gln Glu Met Ala Lys Gly Glu Glu Lys Leu Ala Ala Asn Thr Leu Ser Thr Pro Ser Gly Ser Ser Leu Gln Arg Pro Lys Lys Ser Gly Asp Met Thr Leu Ile Pro Glu Gln Glu Pro Met Glu Ile Asp Ser Glu Pro Gly Val Glu Asn Val Phe Glu Val Ser Lys Thr Gln Asp Asn Arg Asn Asn Ser His Gln Asp Ile Asp Ser Glu Asn Met Lys Gln Lys Thr Ser Ala Thr Val Gln Lys Asp Glu Leu Arg Thr Cys Thr Ala Asp Ser Lys Ala Thr Ala Pro Ala Tyr Lys Pro Gly Arg Gly Thr Gly Val Asn Ser Asn Ser Glu Lys His Ala Asp His Arg Ser Thr Leu Thr Lys Lys Met His Ile Gln Ser Ala Val Ser Lys Met Asn Pro Gly Glu Lys Glu Pro Ile His Arg Gly Thr Thr Glu Val Asn Ile Asp Ser Glu Thr Val His Arg Met Leu Leu Ser Ala Pro Ser Glu Asn Asp Arg Val Gln Lys Asn Leu Lys Asn Thr Ala Ala Glu Glu His Val Ala Gln Gly Asp Ala Thr Leu Glu His Ser Thr Asn Leu Asp Ser Ser Pro Ser Leu Ser Ser Val Thr Val Val Pro Leu Arg Glu Ser Tyr Asp Pro Asp Val Ile Pro Leu Phe Asp Lys Arg Thr Val Leu 

Glu Gly Ser Thr Ala Ser Thr Ser Pro Ala Asp His Ser Ala Leu Pro 965 970 Asn Gln Ser Leu Thr Val Arg Glu Ser Glu Val Leu Lys Thr Ser Asp 980 985 Ser Lys Glu Gly Glu Gly Phe Thr Val Asp Thr Pro Ala Lys Ala 995 1000 · 1005 Ser Ile Thr Ser Lys Arg His Ile Pro Glu Ala His Gln Ala Thr Leu 1015 1020 1010 Leu Asp Gly Lys Gln Gly Lys Val Ile Met Pro Leu Gly Ser Lys Leu 1030 1035 Thr Gly Val Ile Val Glu Asn Glu Asn Ile Thr Lys Glu Gly Gly Leu 1045 1050 1055 Val Asp Met Ala Lys Lys Glu Asn Asp Leu Asn Ala Glu Pro Asn Leu 1060 1065 1070 Lys Gln Thr Ile Lys Ala Thr Val Glu Asn Gly Lys Lys Asp Gly Ile 1075 1080 Ala Val Asp His Val Val Gly Leu Asn Thr Glu Lys Tyr Ala Glu Thr 1095 1100 Val Lys Leu Lys His Lys Arg Ser Pro Gly Lys Val Lys Asp Ile Ser 1110 1115 1120 Ile Asp Val Glu Arg Arg Asn Glu Asn Ser Glu Val Asp Thr Ser Ala 1135 1125 1130 Gly Ser Gly Ser Ala Pro Ser Val Leu His Gln Arg Asn Gly Gln Thr 1140 1145 1150 Glu Asp Val Ala Thr Gly Pro Arg Arg Ala Glu Lys Thr Ser Val Ala 1160 1165 1155 Thr Ser Thr Glu Gly Lys Asp Lys Asp Val Thr Leu Ser Pro Val Lys 1175 1180 Ala Gly Pro Ala Thr Thr Thr Ser Ser Glu Thr Arg Gln Ser Glu Val 1190 1195 Ala Leu Pro Cys Thr Ser Ile Glu Ala Asp Glu Gly Leu Ile Ile Gly 1205 1210 1215 Thr His Ser Arg Asn Asn Pro Leu His Val Gly Ala Glu Ala Ser Glu 1220 1225 1230 Cys Thr Val Phe Ala Ala Ala Glu Glu Gly Gly Ala Val Val Thr Glu 1235 1240 1245 Gly Phe Ala Glu Ser Glu Thr Phe Leu Thr Ser Thr Lys Glu Gly Glu 1250 1255 1260 Ser Gly Glu Cys Ala Val Ala Glu Ser Glu Asp Arg Ala Ala Asp Leu 1270 1275 Leu Ala Val His Ala Val Lys Ile Glu Ala Asn Val Asn Ser Val Val 1285 1290 1295 Thr Glu Glu Lys Asp Asp Ala Val Thr Ser Ala Gly Ser Glu Glu Lys 1300 1305 1310 Cys Asp Gly Ser Leu Ser Arg Asp Ser Glu Ile Val Glu Gly Thr Ile 1315 1320 1325 Thr Phe Ile Ser Glu Val Glu Ser Asp Gly Ala Val Thr Ser Ala Gly 1335 1340 Thr Glu Ile Arg Ala Gly Ser Ile Ser Ser Glu Glu Val Asp Gly Ser 1350 1355 Gln Gly Asn Met Met Arg Met Gly Pro Lys Lys Glu Thr Glu Gly Thr 1370 1365 1375 Val Thr Cys Thr Gly Ala Glu Gly Arg Ser Asp Asn Phe Val Ile Cys 1380 1385 1390 Ser Val Thr Gly Ala Gly Pro Arg Glu Glu Arg Met Val Thr Gly Ala 1395 1400 1405 Gly Val Val Leu Gly Asp Asn Asp Ala Pro Pro Gly Thr Ser Ala Ser 1410 1415 1420 Gln Glu Gly Asp Gly Ser Val Asn Asp Gly Thr Glu Gly Glu Ser Ala 1425 ' 1430 1435 1440 Val Thr Ser Thr Gly Ile Thr Glu Asp Gly Glu Gly Pro Ala Ser Cys 1445 1450 1455 Thr Gly Ser Glu Asp Ser Ser Glu Gly Phe Ala Ile Ser Ser Glu Ser 1465 1460

Glu Glu Asn Gly Glu Ser Ala Met Asp Ser Thr Val Ala Lys Glu Gly 1475 1480 1485 Thr Asn Val Pro Leu Val Ala Ala Gly Pro Cys Asp Asp Glu Gly Ile 1490 1495 1500 Val Thr Ser Thr Gly Ala Lys Glu Glu Asp Glu Glu Gly Glu Asp Val 1505 1510 1515 Val Thr Ser Thr Gly Arg Gly Asn Glu Ile Gly His Ala Ser Thr Cys 1525 1530 Thr Gly Leu Gly Glu Glu Ser Glu Gly Val Leu Ile Cys Glu Ser Ala 1540 1545 1550 Glu Gly Asp Ser Gln Ile Gly Thr Val Val Glu His Val Glu Ala Glu 1555 1560 1565 Ala Gly Ala Ala Ile Met Asn Ala Asn Glu Asn Asn Val Asp Ser Met 1575 1580 Ser Gly Thr Glu Lys Gly Ser Lys Asp Thr Asp Ile Cys Ser Ser Ala 1590 1595 Lys Gly Ile Val Glu Ser Ser Val Thr Ser Ala Val Ser Gly Lys Asp 1605 1610 1615 Glu Val Thr Pro Val Pro Gly Gly Cys Glu Gly Pro Met Thr Ser Ala 1625 1630 1620 Ala Ser Asp Gln Ser Asp Ser Gln Leu Glu Lys Val Glu Asp Thr Thr 1635 1640 1645 Ile Ser Thr Gly Leu Val Gly Gly Ser Tyr Asp Val Leu Val Ser Gly 1655 1660 Glu Val Pro Glu Cys Glu Val Ala His Thr Ser Pro Ser Glu Lys Glu 1670 1675 1680 Asp Glu Asp Ile Ile Thr Ser Val Glu Asn Glu Glu Cys Asp Gly Leu 1685 1690 1695 Met Ala Thr Thr Ala Ser Gly Asp Ile Thr Asn Gln Asn Ser Leu Ala 1700 1705 1710 Gly Gly Lys Asn Gln Gly Lys Val Leu Ile Ile Ser Thr Ser Thr Thr 1725 1720 Asn Asp Tyr Thr Pro Gln Val Ser Ala Ile Thr Asp Val Glu Gly Gly 1730 1735 1740 Leu Ser Asp Ala Leu Arg Thr Glu Glu Asn Met Glu Gly Thr Arg Val 1750 1755 Thr Thr Glu Glu Phe Glu Ala Pro Met Pro Ser Ala Val Ser Gly Asp 1765 1770 Asp Ser Gln Leu Thr Ala Ser Arg Ser Glu Glu Lys Asp Glu Cys Ala 1790 1780 1785 Met Ile Ser Thr Ser Ile Gly Glu Glu Phe Glu Leu Pro Ile Ser Ser 1795 1800 1805 Ala Thr Thr Ile Lys Cys Ala Glu Ser Leu Gln Pro Val Ala Ala Ala 1810 1815 1820 Val Glu Glu Arg Ala Thr Gly Pro Val Leu Ile Ser Thr Ala Asp Phe 1830 1835 Glu Gly Pro Met Pro Ser Ala Pro Pro Glu Ala Glu Ser Pro Leu Ala 1845 1850 1855 Ser Thr Ser Lys Glu Glu Lys Asp Glu Cys Ala Leu Ile Ser Thr Ser 1860 1865 1870 Ile Ala Glu Glu Cys Glu Ala Ser Val Ser Gly Val Val Val Glu Ser 1885 1880 Glu Asn Glu Arg Ala Gly Thr Val Met Glu Glu Lys Asp Gly Ser Gly 1890 1895 1900 Ile Ile Ser Thr Ser Ser Val Glu Asp Cys Glu Gly Pro Val Ser Ser 1905 1910 1915 Ala Val Pro Gln Glu Glu Gly Asp Pro Ser Val Thr Pro Ala Glu Glu 1930 1925 1935 Met Gly Asp Thr Ala Met Ile Ser Thr Ser Thr Ser Glu Gly Cys Glu 1940 1945 1950 Ala Val Met Ile Gly Ala Val Leu Gln Asp Glu Asp Arg Leu Thr Ile 1955 1960 1965 Thr Arg Val Glu Asp Leu Ser Asp Ala Ala Ile Ile Ser Thr Ser Thr 1980

Ala Glu Cys Met Pro Ile Ser Ala Ser Ile Asp Arg His Glu Glu Asn 1985 1990 1995 Gln Leu Thr Ala Asp Asn Pro Glu Gly Asn Gly Asp Leu Ser Ala Thr 2005 2010 2015 Glu Val Ser Lys His Lys Val Pro Met Pro Ser Leu Ile Ala Glu Asn 2020 2025 2030 Asn Cys Arg Cys Pro Gly Pro Val Arg Gly Gly Lys Glu Pro Gly Pro . 2040 2035 2045 Val Leu Ala Val Ser Thr Glu Glu Gly His Asn Gly Pro Ser Val His 2050 2055 2060 Lys Pro Ser Ala Gly Gln Gly His Pro Ser Ala Val Cys Ala Glu Lys 2065 2070 2075 2080 2065 Glu Glu Lys His Gly Lys Glu Cys Pro Glu Ile Gly Pro Phe Ala Gly 2085 2090 Arg Gly Gln Lys Glu Ser Thr Leu His Leu Ile Asn Ala Glu Glu Lys 2100 2105 2110 Asn Val Leu Leu Asn Ser Leu Gln Lys Glu Asp Lys Ser Pro Glu Thr 2115 2120 2125 Gly Thr Ala Gly Gly Ser Ser Thr Ala Ser Tyr Ser Ala Gly Arg Gly 2135 2130 2140 Leu Glu Gly Asn Ala Asn Ser Pro Ala His Leu Arg Gly Pro Glu Gln 2150 2155 Thr Ser Gly Gln Thr Ala Lys Asp Ser Ser Val Ser Ser Ile Arg Tyr 2165 2170 2175 Leu Ala Ala Val Asn Thr Gly Ala Ile Lys Ala Asp Asp Met Pro Pro 2180 2185 2190 Val Gln Gly Thr Val Ala Glu His Ser Phe Leu Pro Ala Glu Gln Gln 2200 2205 Gly Ser Glu Asp Asn Leu Lys Thr Ser Thr Thr Lys Cys Ile Thr Gly 2210 2215 2220 Gln Glu Ser Lys Ile Ala Pro Ser His Thr Met Ile Pro Pro Ala Thr 2230 2235 Tyr Ser Val Ala Leu Leu Ala Pro Lys Cys Glu Gln Asp Leu Thr Ile 2245 2250 2255Lys Asn Asp Tyr Ser Gly Lys Trp Thr Asp Gln Ala Ser Ala Glu Lys 2260 2265 2270Thr Gly Asp Asp Asn Ser Thr Arg Lys Ser Phe Pro Glu Glu Gly Asp 2275 2280 2285 Ile Met Val Thr Val Ser Ser Glu Glu Asn Val Cys Asp Ile Gly Asn 2290 2295 2300 Glu Glu Ser Pro Leu Asn Val Leu Gly Gly Leu Lys Leu Lys Ala Asn 2305 2310 2315 Leu Lys Met Glu Ala Tyr Val Pro Ser Glu Glu Glu Lys Asn Gly Glu 2325 2330 2335 Ile Leu Ala Pro Pro Glu Ser Leu Cys Gly Gly Lys Pro Ser Gly Ile 2340 2345 2350 Ala Glu Leu Gln Arg Glu Pro Leu Leu Val Asn Glu Ser Leu Asn Val 2355 2360 2365 Glu Asn Ser Gly Phe Arg Thr Asn Glu Glu Ile His Ser Glu Ser Tyr 2375 2380 Asn Lys Gly Glu Ile Ser Ser Gly Arg Lys Asp Asn Ala Glu Ala Ile 2390 2395 Ser Gly His Ser Val Glu Ala Asp Pro Lys Glu Val Glu Glu Glu Glu 2405 2410 2415 Arg His Met Pro Lys Arg Lys Arg Lys Gln His Tyr Leu Ser Ser Glu 2420 2425 2430 Asp Glu Pro Asp Asp Asn Pro Asp Val Leu Asp Ser Arg Ile Glu Thr 2435 2440 2445 Ala Gln Arg Gln Cys Pro Glu Thr Glu Pro His Ala Thr Lys Glu Glu 2455 2460 Asn Ser Arg Asp Leu Glu Glu Leu Pro Lys Thr Ser Ser Glu Thr Asn 2465 2470 2475 Ser Thr Thr Ser Arg Val Met Glu Glu Lys Asp Glu Tyr Ser Ser Ser 2490 2495 2485

Glu Thr Thr Gly Glu Lys Pro Glu Gln Asn Asp Asp Thr Ile Lys 2500 2505 2510 Ser Gln Glu 2515

<210> 2652 <211> 174 <212> PRT

<213> Homo sapiens

<400> 2652 Glu Pro Ser Leu Phe Pro Phe Leu Arg Pro Ser Pro Ala Arg Pro Pro 10 Pro Arg Pro Pro Ala Pro Phe Pro Ser Pro Glu Leu Ala Gly Pro Glu 20 25 Pro His Phe Val Phe Tyr Phe Phe Leu Ser Tyr Val His Pro Pro Lys 40 45 Glu Leu Ala Lys Tyr Glu Tyr Met Glu Glu Gln Val Ile Leu Thr Glu 55 Lys Gly Asn Ser Thr Val Ala Gly Arg Gly Thr Ser Val Arg Cys Leu 70 75 Ser Pro Ser Pro Arg Pro Leu Pro Pro Leu Leu Pro Leu Leu Ala Asp 90 85 Leu Leu Glu Asp Gly Phe Gly Glu His Pro Phe Tyr His Cys Leu Val Ala Glu Val Pro Lys Glu His Trp Thr Pro Glu Gly Asn Pro Ser Pro 115 120 125 Phe Pro Glu Ala Arg Glu Thr Lys Cys Tyr Val Arg Ser Ser Val Gly 130 135 140 Cys Val Glu Pro Leu Thr Thr Gln Ala Glu Val Thr Glu Asn Leu Asp 145 - 150 155 Arg Lys Asn Ser Gln Gln Val Phe Lys Leu Leu Lys Lys

<210> 2653 <211> 74 <212> PRT <213> Homo sapiens

<210> 2654 <211> 185 <212> PRT <213> Homo sapiens

<400> 2654 Leu Cys Thr Leu Ser Pro Gly Ile Ser Gly Thr Ala Gly Ser Cys Leu 10 Thr Thr Glu Pro Gly Thr Glu Leu Gly Thr Ser Phe Ala Gln Asn Gly 20 25 Phe Tyr His Glu Ala Val Val Leu Phe Thr Gln Ala Leu Lys Leu Asn 40 Pro Gln Asp His Arg Leu Phe Gly Asn Arg Ser Phe Cys His Glu Arg 55 60 Leu Gly Gln Pro Ala Trp Ala Leu Ala Asp Ala Gln Val Ala Leu Thr 70 75 Leu Arg Pro Gly Trp Pro Arg Gly Leu Phe Arg Leu Gly Lys Ala Leu Met Gly Leu Gln Arg Phe Arg Glu Ala Ala Ala Val Phe Gln Glu Thr 105 100 Leu Arg Gly Gly Ser Gln Pro Asp Ala Ala Arg Glu Leu Arg Ser Cys 125 115 120 Leu Leu His Leu Thr Leu Gln Gly Gln Arg Gly Gly Ile Cys Ala Pro 135 140 Pro Leu Ser Pro Gly Ala Leu Gln Pro Leu Pro His Ala Glu Leu Ala 150 155 Pro Ser Gly Leu Pro Ser Leu Arg Cys Pro Arg Ser Thr Ala Leu Arg 165 170 Ser Pro Gly Leu Ser Pro Leu Leu His 180

<210> 2655 <211> 130 <212> PRT <213> Homo sapiens

<400> 2655 Thr Asp Leu Leu Gly Arg Arg Phe Arg Val Asp Gly Ala Ala Met Ala 1 15 Ala Cys Glu Gly Arg Arg Ser Gly Ala Leu Gly Ser Ser Gln Ser Asp 20 25 Phe Leu Thr Pro Pro Val Gly Gly Ala Pro Trp Ala Val Ala Thr Thr 35 40 Val Val Met Tyr Pro Pro Pro Pro Pro Pro Pro His Arg Asp Phe Ile 55 60 Ser Val Thr Leu Ser Phe Gly Glu Ser Tyr Asp Asn Ser Lys Ser Trp 70 75 Arg Arg Ser Cys Trp Arg Lys Trp Lys Gln Leu Ser Arg Leu Gln 85 90 Arg Asn Met Ile Leu Phe Leu Leu Ala Phe Leu Leu Phe Cys Gly Leu 105 110 Leu Phe Tyr Ile Asn Leu Ala Asp His Trp Lys Gly Ile Arg Asn Thr 120 Cys Thr 130

<210> 2656 <211> 136 <212> PRT <213> Homo sapiens

<400> 2656

Ile Pro Gly Ser Thr Ile Ser Leu Glu Gly Pro Leu Ser Lys Trp Thr 10 Asn Val Met Lys Gly Trp Gln Tyr Arg Trp Phe Val Leu Asp Tyr Asn 25 Ala Gly Leu Leu Ser Tyr Tyr Thr Ser Lys Asp Lys Met Met Arg Gly 40 Ser Arg Arg Gly Cys Val Arg Leu Arg Gly Ala Val Ile Gly Ile Asp 50 55 Asp Glu Asp Asp Ser Thr Phe Thr Ile Thr Val Asp Gln Lys Thr Phe 70 75 His Phe Gln Ala Arg Asp Ala Asp Glu Arg Glu Lys Trp Ile His Ala 85 .90 Leu Glu Glu Thr Ile Leu Arg His Thr Leu Gln Leu Gln Val Arg Val 105 100 110 Phe Thr Trp Phe Pro Asp Ser Ser Leu Val Gly Ala Phe Phe Phe Trp 120 Leu Val Ser Gly Phe Phe Lys 130 135 136

<210> 2657 <211> 74 <212> PRT <213> Homo sapiens

<210> 2658 <211> 150 <212> PRT <213> Homo sapiens

<400> 2658 Glu Cys Gly Gly Ile Arg Gln Pro Gly Pro Gly Pro Pro Pro Ala Leu Ala Ser Ala Pro Ala Ala Thr Met Asn Arg Val Gly Gly Ser Pro Ser 20 25 Ala Ala Asn Tyr Leu Leu Cys Thr Asn Cys Arg Lys Val Leu Arg 40 Lys Asp Lys Arg Ile Arg Val Ser Gln Pro Leu Thr Arg Gly Pro Ser Ala Phe Ile Pro Glu Lys Glu Val Val Gln Ala Asn Thr Val Asp Glu 75 70 Arg Thr Asn Phe Leu Val Glu Glu Tyr Ser Thr Ser Gly Arg Leu Asp 90 Asn Ile Thr Gln Val Met Ser Leu His Thr Gln Tyr Leu Glu Ser Phe 100 105 110 Leu Arg Ser Gln Phe Tyr Met Leu Arg Met Asp Gly Pro Leu Pro Leu

<210> 2659 <211> 125 <212> PRT <213> Homo sapiens

<400> 2659 Arg Gly Trp Pro Glu Gln Gln Ser Thr Gly Arg Pro Arg Asp Val Ala 10 Arg Gln Pro Arg Cys Gln Lys Glu Glu Gly Arg Arg Leu Arg Pro Arg 20 25 30 Ala Leu Glu Ser Arg Thr Phe Gln Gly Ser Glu Arg Ser Arg Trp Gly 35 40 45 Pro Pro Leu Glu Ser Thr Lys Glu Asn Val Gln Cys Gly His Arg Pro 55 Ala Phe Pro Asn Ser Ser Trp Leu Pro Phe His Glu Arg Leu Gln Val 75 70 Gln Asn Gly Glu Cys Pro Trp Gln Val Ser Ile Gln Met Ser Arg Lys 85 90 His Leu Cys Gly Gly Ser Ile Leu His Trp Trp Trp Val Leu Thr Ala 100 105 Ala His Cys Phe Arg Arg Thr Leu Leu Asp Met Ala Val

<210> 2660 <211> 66 <212> PRT <213> Homo sapiens

<210> 2661 <211> 191 <212> PRT <213> Homo sapiens

Thr Leu Asn Ser Ala Ile Cys Val Leu Ser Thr Val Leu Ile Met Glu Phe Pro Asp Leu Gly Lys His Cys Ser Glu Lys Thr Cys Lys Gln Leu Asp Phe Leu Pro Val Lys Cys Asp Ala Cys Lys Gln Asp Phe Cys Lys 70 Asp His Phe Pro Tyr Ala Ala His Lys Cys Pro Phe Ala Phe Gln Lys 90 Asp Val His Val Pro Val Cys Pro Leu Cys Asn Thr Pro Ile Pro Val 105 100 Lys Lys Gly Gln Ile Pro Asp Val Val Gly Asp His Ile Asp Arg 125 120 Asp Cys Asp Ser His Pro Gly Lys Lys Lys Glu Lys Ile Phe Thr Tyr 135 140 Arg Cys Ser Lys Glu Gly Cys Lys Lys Glu Met Leu Gln Met Val 150 155 Cys Ala Gln Cys His Gly Asn Phe Cys Ile Gln His Arg His Pro Leu 170 165 Asp His Ser Cys Arg His Gly Ser Arg Pro Thr Ile Lys Ala Gly 185

<210> 2662 <211> 222 <212> PRT <213> Homo sapiens

<400> 2662 Ser Thr Ser Ser Asp Glu Gly Ser Pro Ser Ala Ser Thr Pro Met Ile 10 Asn Lys Thr Gly Phe Lys Phe Ser Ala Glu Lys Pro Val Ile Glu Val 25 Pro Ser Met Thr Ile Leu Asp Lys Lys Asp Gly Glu Gln Ala Lys Ala 35 40 Leu Phe Glu Lys Val Arg Lys Phe Arg Ala His Val Glu Asp Ser Asp 55 Leu Ile Tyr Lys Leu Tyr Val Val Gln Thr Val Ile Lys Thr Ala Lys 70 75 Phe Ile Phe Ile Leu Cys Tyr Thr Ala Asn Phe Val Asn Ala Ile Ser 85 90 Phe Glu His Val Cys Lys Pro Lys Val Glu His Leu Ile Gly Tyr Glu 105 110 100 Val Phe Glu Cys Thr His Asn Met Ala Tyr Met Leu Lys Lys Leu Leu 120 125 Ile Ser Tyr Ile Ser Ile Ile Cys Val Tyr Gly Phe Ile Cys Leu Tyr 135 140 Thr Leu Phe Trp Leu Phe Arg Ile Pro Leu Lys Glu Tyr Ser Phe Glu 150 155 Lys Val Arg Glu Glu Ser Ser Phe Ser Asp Ile Pro Asp Val Lys Asn 165 170 Asp Phe Ala Phe Leu Leu His Met Val Asp Gln Tyr Asp Gln Leu Tyr 185 Ser Lys Arg Phe Gly Val Phe Leu Ser Glu Val Ser Glu Asn Lys Leu 200 205 Arg Glu Ile Ser Leu Asn His Glu Trp Thr Phe Glu Lys Leu 215 220 222

<210> 2663 <211> 318 <212> PRT

## <213> Homo sapiens

<400> 2663 Gly Ala His Arg Val Leu Ser Pro Ala Gln Gly Ala Gln Pro Arg Leu 10 Arg Ser Ala Ala Ser Val Glu Val Ser Met Val Gly Gln Arg Val Leu 20 25 30 Leu Leu Val Ala Phe Leu Leu Ser Gly Val Leu Leu Ser Glu Ala Ala 40 Lys Ile Leu Thr Ile Ser Thr Leu Gly Gly Ser His Tyr Leu Leu Leu 55 Asp Arg Val Ser Gln Ile Leu Gln Glu His Gly His Asn Val Thr Met 70 Leu His Gln Ser Gly Lys Phe Leu Ile Pro Asp Ile Lys Glu Glu Glu 95 85 90 Lys Ser Tyr Gln Val Ile Arg Trp Phe Ser Pro Glu Asp His Gln Lys 100 105 Arg Ile Lys Lys His Phe Asp Ser Tyr Ile Glu Thr Ala Leu Asp Gly 115 120 Arg Lys Glu Ser Glu Ala Leu Val Lys Leu Met Glu Ile Phe Gly Thr 135 140 Gln Cys Ser Tyr Leu Leu Ser Arg Lys Asp Ile Met Asp Ser Leu Lys 150 155 Asn Glu Asn Tyr Asp Leu Val Phe Val Glu Ala Phe Asp Phe Cys Ser 165 170 Phe Leu Ile Ala Glu Lys Leu Val Lys Pro Phe Val Ala Ile Leu Pro 180 185 190 Thr Thr Phe Gly Ser Leu Asp Phe Gly Leu Pro Ser Pro Leu Ser Tyr 195 200 Val Pro Val Phe Pro Ser Leu Leu Thr Asp His Met Asp Phe Trp Gly 215 Arg Val Lys Asn Phe Leu Met Phe Phe Ser Phe Ser Arg Ser Gln Trp 230 235 Asp Met Gln Ser Thr Phe Asp Asn Thr Ile Lys Glu His Phe Pro Glu 245 250 Gly Ser Arg Pro Val Leu Ser His Leu Leu Leu Lys Ala Glu Leu Trp 260 265 . 270 Phe Val Asn Ser Asp Cys Ala Phe Asp Phe Ala Arg Pro Leu Leu Pro 275 280 285 Asn Thr Val Tyr Ile Gly Gly Leu Met Glu Lys Pro Ile Lys Pro Val 295 300 Pro Gln Val Ser Glu Pro Ser Ala Phe Ser Leu Gly Phe Thr 310

<210> 2664 <211> 451 <212> PRT <213> Homo sapiens

70

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Ser Ser Gly Ser Leu Lys Val Glu Phe Phe Pro Pro Gln Glu Lys Asp
             85
                      90
Ile Lys Lys Glu Glu Ile Thr Lys Glu Glu Glu Arg Glu Lys Lys Phe
                        105
Ser Arg Arg Leu Asn His Ser Pro Pro Gln Ser Ser Arg Tyr Arg
      115 120
                              125
Glu Asn Arg Ser Arg Asp Glu Arg Lys Lys Asp Asp Arg Ser Arg Lys
          135
                                   140
Arg Asp Tyr Asp Arg Asn Pro Pro Arg Arg Asp Ser Tyr Arg Asp Arg
              150
                               155
Tyr Asn Arg Arg Arg Gly Arg Ser Arg Ser Tyr Ser Arg Ser Arg Ser
            165
                     170
                                           175
Arg Ser Trp Ser Lys Glu Arg Leu Arg Glu Arg Asp Arg Asp Arg Ser
         180
                         185
                                          190
Arg Thr Arg Ser Arg Ser Arg Thr Arg Ser Arg Glu Arg Asp Leu Val
                     200
Lys Pro Lys Tyr Asp Leu Asp Arg Thr Asp Pro Leu Glu Asn Asn Tyr
          215
                           220
Thr Pro Val Ser Ser Val Pro Ser Ile Ser Ser Gly His Tyr Pro Val
        230
                               235
Pro Thr Leu Ser Ser Thr Ile Thr Val Ile Ala Pro Thr His His Gly
           245
                             250
Asn Asn Thr Thr Glu Ser Trp Ser Glu Phe His Glu Asp Gln Val Asp
                         265
        260
His Asn Ser Tyr Val Arg Pro Pro Met Pro Lys Lys Arg Cys Arg Asp
     275
                    280
                                      285
Tyr Asp Glu Lys Gly Phe Cys Met Arg Gly Asp Met Cys Pro Phe Asp
                295
His Gly Ser Asp Pro Val Val Val Glu Asp Val Asn Leu Pro Gly Met
       310
                                315
Gln Pro Phe Pro Ala Gln Pro Pro Val Val Glu Gly Pro Pro Pro Pro
          325 330 335
Gly Leu Pro Pro Pro Pro Pro Ile Leu Thr Pro Pro Pro Val Asn Leu
         340
                          345
                                  350
Arg Pro Pro Val Pro Pro Pro Gly Pro Leu Pro Pro Ser Leu Pro Pro
      355
                      360
Val Thr Gly Pro Pro Pro Leu Pro Pro Leu Gln Pro Ser Gly Met
          375 380
  370
Asp Ala Pro Pro Asn Ser Ala Thr Ser Ser Val Pro Thr Val Val Thr
        390 395
Thr Gly Ile His His Gln Pro Pro Pro Ala Pro Pro Ser Leu Phe Thr
                    410
            405
Ala Asp Thr Tyr Asp Thr Asp Gly Tyr Asn Pro Glu Ala Pro Ser Ile
        420 425
Thr Asn Thr Ser Arg Pro Met Tyr Arg His Arg Val His Pro Arg Ala
                     440
    435
Lys Leu Gly
  450 451
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<210> 2665 <211> 294 <212> PRT <213> Homo sapiens

Pro Leu Lys Gln Glu Glu Gly Arg Arg Glu Trp Gly Ser Ser Ile Gly 55 Thr Pro Ser Pro Cys Gly Ser Ala Gln Ala Ala Ala Ala Ala Ala Ala 70 Glu Glu Ala Thr Glu Lys Ile Pro Ala Leu Arg Pro Ala Leu Leu Trp 90 85 Ala Leu Leu Ala Leu Trp Leu Cys Cys Ala Thr Pro Ala His Ala Leu 100 110 105 Gln Cys Arg Asp Gly Tyr Glu Pro Cys Val Asn Glu Gly Met Cys Val 115 120 125 Thr Tyr His Asn Gly Thr Gly Tyr Cys Lys Cys Pro Glu Gly Phe Leu 130 135 140 Gly Glu Tyr Cys Gln His Arg Asp Pro Cys Glu Lys Asn Arg Cys Gln 145 . 155 150 Asn Gly Gly Thr Cys Val Ala Gln Ala Met Leu Gly Lys Ala Thr Cys 165· 170 Arg Cys Ala Ser Gly Phe Thr Gly Glu Asp Cys Gln Tyr Ser Thr Ser 180 185 190 His Pro Cys Phe Val Ser Arg Pro Cys Leu Asn Gly Gly Thr Cys His 195 200 205 Met Leu Ser Arg Asp Thr Tyr Glu Cys Thr Cys Gln Val Gly Phe Thr 215 220 Gly Arg Asn Pro Lys Cys Pro Gly Gly Asn Leu Asn Tyr Gln Phe Asn 230 235 Gly Ile Ile Val Val Tyr Ser Gly Gly Ser Val Pro Pro Ser Gly Thr 245 250 255 Lys Thr Ser Lys Pro Ala Glu His Asn Ala Met Gly Thr Gly Ser Lys 260 265 270 Asn Phe Ala Ser Gly Thr Leu Trp Val Met Val Ser Gly Ala Thr Ser 275 280 Thr Ser Thr Ser Thr Leu 290 294

<210> 2666 <211> 151 <212> PRT

<213> Homo sapiens

<400> 2666 Ser Leu Ser Met Glu Ser Asn His Lys Ser Gly Asp Gly Leu Ser Gly 10 Thr Gln Lys Glu Ala Ala Leu Arg Ala Leu Val Gln Arg Thr Gly Tyr 20 25 30 Ser Leu Val Gln Glu Asn Gly Gln Arg Lys Tyr Gly Gly Pro Pro Pro 40 Gly Trp Asp Ala Ala Pro Pro Glu Arg Gly Cys Glu Ile Phe Ile Gly 55 60 Lys Leu Pro Arg Asp Leu Phe Glu Asp Glu Leu Ile Pro Leu Cys Glu 70 75 Lys Ile Gly Lys Ile Tyr Glu Met Arg Met Met Asp Phe Asn Gly 85 90 Asn Asn Arg Gly Tyr Ala Phe Val Thr Phe Ser Asn Lys Val Glu Ala 100 105 Lys Asn Ala Ile Lys Gln Leu Asn Asn Tyr Glu Ile Arg Asn Gly Arg 120 115 125 Leu Leu Gly Val Cys Ala Ser Val Asp Asn Cys Arg Leu Phe Val Gly 135 Gly Ile Pro Lys Thr Lys Lys 150 151

<210> 2667 <211> 599 <212> PRT <213> Homo sapiens

<400> 2667 Leu Leu Lys Ser Cys Gly Val Leu Leu Ser Gly Val Cys Ile Pro Cys 10 Glu Gly Lys Gly Pro Thr Val Leu Val Ile Gln Thr Ala Val Pro Gln 20 25 Asp Arg Pro Thr Lys Ser Ser Met Arg Ser Ala Ala Lys Pro Trp Asn 40 Pro Ala Ile Arg Ala Gly Gly His Gly Pro Asp Arg Val Arg Pro Leu Pro Ala Ala Ser Ser Gly Met Lys Ser Ser Lys Ser Ser Thr Ser Leu 70 Ala Phe Glu Ser Arg Leu Ser Arg Leu Lys Arg Ala Ser Ser Glu Asp 85 90 Thr Leu Asn Lys Pro Gly Ser Thr Ala Ala Ser Gly Val Val Arg Leu 105 100 110 Lys Lys Thr Ala Thr Ala Gly Ala Ile Ser Glu Leu Thr Glu Ser Arg 120 115 Leu Arg Ser Gly Thr Gly Ala Phe Thr Thr Thr Lys Arg Thr Gly Ile 135 140 Pro Ala Pro Arg Glu Phe Ser Val Thr Val Ser Arg Glu Arg Ser Val 150 155 Pro Arg Gly Pro Ser Asn Pro Arg Lys Ser Val Ser Ser Pro Thr Ser 170 165 Ser Asn Thr Pro Thr Pro Thr Lys His Leu Arg Thr Pro Ser Thr Lys 180 185 Pro Lys Gln Glu Asn Glu Gly Gly Glu Lys Ala Ala Leu Glu Ser Gln 200 Val Arg Glu Leu Leu Ala Glu Ala Lys Ala Lys Asp Ser Glu Ile Asn 215 Arg Leu Arg Ser Glu Leu Lys Lys Tyr Lys Glu Lys Arg Thr Leu Asn 230 235 Ala Glu Gly Thr Asp Ala Leu Gly Pro Asn Val Asp Gly Thr Ser Val 245 250 Ser Pro Gly Asp Thr Glu Pro Met Ile Arg Ala Leu Glu Glu Lys Asn 265 Lys Asn Phe Gln Lys Glu Leu Ser Asp Leu Glu Glu Glu Asn Arg Val 280 275 285 Leu Lys Glu Lys Leu Ile Tyr Leu Glu His Ser Pro Asn Ser Glu Gly 295 300 Ala Ala Ser His Thr Gly Asp Ser Ser Cys Pro Thr Ser Ile Thr Gln 310 315 Glu Ser Ser Phe Gly Ser Pro Thr Gly Asn Gln Leu Ser Ser Asp Ile 325 330 Asp Glu Tyr Lys Lys Asn Ile His Gly Asn Ala Leu Arg Thr Ser Gly 340 345 Ser Ser Ser Ser Asp Val Thr Lys Ala Ser Leu Ser Pro Asp Ala Ser 355 360 365 360 365 Asp Phe Glu His Ile Thr Ala Glu Thr Pro Ser Arg Pro Leu Ser Ser 375 380 Thr Ser Asn Pro Phe Lys Ser Ser Lys Cys Ser Thr Ala Gly Ser Ser 390 . 395 Pro Asn Ser Val Ser Glu Leu Ser Leu Ala Ser Leu Thr Glu Lys Ile 410 Gln Lys Met Glu Glu Asn His His Ser Thr Ala Glu Glu Leu Gln Ala 425 420 Thr Leu Gln Glu Leu Ser Asp Gln Gln Gln Met Val Gln Glu Leu Thr 440

Ala Glu Asn Glu Lys Leu Val Asp Glu Lys Thr Ile Leu Glu Thr Ser 455 Phe His Gln His Arg Glu Arg Ala Glu Gln Leu Ser Gln Glu Asn Glu 470 475 Lys Leu Met Asn Leu Leu Gln Glu Arg Val Lys Asn Glu Glu Pro Thr 485 490 Thr Gln Glu Gly Lys Ile Ile Glu Leu Glu Gln Lys Cys Thr Gly Ile 500 505 Leu Glu Gln Gly Arg Phe Glu Arg Glu Lys Leu Leu Asn Ile Gln Gln 520 525 Gln Leu Thr Cys Ser Leu Arg Lys Val Glu Glu Glu Asn Gln Gly Ala 535 540 Leu Glu Met Ile Lys Arg Leu Lys Glu Glu Asn Glu Lys Leu Asn Glu 550 555 Phe Leu Glu Leu Glu Arg His Asn Asn Asn Met Met Ala Lys Thr Leu 570 Glu Glu Cys Arg Val Thr Leu Glu Gly Leu Lys Met Glu Asn Gly Ser 580 585 Leu Lys Ser His Leu Gln Gly 595 599

<210> 2668 <211> 182 <212> PRT <213> Homo sapiens

<400> 2668 Gly Glu Cys Phe Ile Met Ala Ala Val Val Gln Gln Asn Asp Leu Val 10 Phe Glu Phe Ala Ser Asn Val Met Glu Asp Glu Arg Gln Leu Gly Asp 20 25 Pro Ala Ile Phe Pro Ala Val Ile Val Glu His Val Pro Gly Ala Asp 35 40 Ile Leu Asn Ser Tyr Ala Gly Leu Ala Cys Val Glu Glu Pro Asn Asp Met Ile Thr Glu Ser Ser Leu Asp Val Ala Glu Glu Glu Ile Ile Asp 70 75 Asp Asp Asp Asp Ile Thr Leu Thr Val Glu Ala Ser Cys His Asp 85 90 Gly Asp Glu Thr Ile Glu Thr Ile Glu Ala Ala Glu Ala Leu Leu Asn 100 105 Met Asp Ser Pro Gly Pro Met Leu Asp Glu Lys Arg Ile Asn Asn Asn 120 125 Ile Phe Ser Ser Pro Glu Asp Asp Met Val Val Ala Pro Val Thr His 135 140 Val Ser Val Thr Leu Asp Gly Ile Pro Glu Val Met Glu Thr Gln Gln 150 155 Val Gln Glu Lys Tyr Ala Asp Ser Pro Gly Ala Ser Ser Pro Glu Gln 165 170 Pro Lys Arg Lys Lys 180 182

<210> 2669 <211> 162 <212> PRT <213> Homo sapiens <221> misc_feature <222> (1)...(162)

## <223> Xaa = any amino acid or nothing

<400> 2669 Met Glu Val Arg Met Ser Gly Ser Val Ala Val Thr Arg Ala Ile Ala 15 10 Val Pro Gly Leu Leu Leu Leu Ile Ile Ala Thr Ala Leu Ser Leu Leu Ile Gly Ala Lys Ser Leu Pro Ala Ser Val Val Leu Glu Ala Phe 35 40 Ser Gly Thr Cys Gln Ser Ala Asp Cys Thr Ile Val Leu Asp Ala Arg 55 50 Leu Pro Arg Thr Leu Ala Gly Leu Leu Ala Gly Gly Ala Leu Gly Leu 70 Ala Gly Ala Leu Met Gln Thr Leu Thr Arg Asn Pro Leu Ala Asp Pro 90 85 Gly Leu Leu Gly Val Asn Ala Gly Ala Ser Phe Ala Ile Val Leu Gly 105 110 100 Ala Ala Leu Phe Gly Tyr Ser Ser Ala Gln Glu Gln Leu Ala Met Ala 120 Phe Ala Gly Ala Leu Val Ala Ser Leu Ile Val Ala Phe Thr Gly Ser 135 140 Gln Gly Gly Gln Leu Ser Pro Val Arg Leu Thr Leu Ala Gly Val 145 150 155 Xaa Leu

<210> 2670 <211> 146 <212> PRT <213> Homo sapiens

<400> 2670 Lys Met Asn Gln Val Ala Val Val Ile Gly Gly Gln Thr Leu Gly 10 Ala Phe Leu Cys His Gly Leu Ala Ala Glu Gly Tyr Arg Val Ala Val 20 Val Asp Ile Gln Ser Asp Lys Ala Ala Asn Val Ala Gln Glu Ile Asn 35 40 45 Ala Glu Tyr Gly Glu Ser Met Ala Tyr Gly Phe Gly Ala Asp Ala Thr 55 60 Ser Glu Gln Ser Val Leu Ala Leu Ser Arg Gly Val Asp Glu Ile Phe 75 -70 Gly Arg Val Asp Leu Leu Val Tyr Ser Ala Gly Ile Ala Lys Ala Ala 90 Phe Ile Ser Asp Phe Gln Leu Gly Asp Phe Asp Arg Ser Leu Gln Val 100 105 110 Asn Leu Val Gly Tyr Phe Leu Cys Ala Arg Glu Phe Ser Arg Leu Met 120 125 Ile Arg Asp Gly Ile Glm Gly Arg Ile Ile Glm Ile Asm Ser Lys Ser 135 Asp Glu 145 146

<210> 2671 <211> 151 <212> PRT <213> Homo sapiens

<400> 2671 Arg His Arg Thr Ala Gly Pro Gly Ser Thr Ile Ser Ser Arg Thr Asp 10 Ser Ala Ser Ala Pro Ala Ala Arg Ala Met Pro Cys Glu Tyr Thr Tyr 20 25 Ala Lys Leu Thr Ser Asp Cys Ser Arg Pro Ser Leu Gln Trp Tyr Thr 35 40 Arg Ala Gln Ser Lys Met Arg Arg Pro Arg Leu Leu Leu Lys Asp Ile 55 Leu Lys Cys Thr Leu Leu Val Phe Gly Val Arg Ile Leu Tyr Ile Leu 70 75 Lys Leu Asn Tyr Thr Thr Glu Glu Cys Asp Met Lys Asn Met His Tyr 85 90 Val Asp Pro Asp His Val Lys Arg Ala Gln Lys Tyr Ala Gln Gln Val 105 Leu Gln Lys Glu Ser Pro Pro Lys Phe Ala Lys Thr Ser Met Ala Leu 115 120 125 Leu Phe Glu His Arg Tyr Ser Val Asp Leu Leu Pro Phe Val Gln Lys 130 135 140 Ala Pro Thr Asp Ser Glu Ala

<210> 2672 <211> 133 <212> PRT <213> Homo sapiens

<400> 2672

Glu Pro Ser Asn Gly Pro Val Val Tyr Ser Ala Leu Gly Asn Glu Asp 10 Asp Glu Ile Leu Leu Gly Lys Asp Ile Ile Gly Thr Phe Ala Ala 20 25 Ser Glu Arg Lys Met Arg Ala His Gln Val Leu Thr Phe Leu Leu 35 Phe Val Ile Thr Ser Gly Ala Ser Glu Asn Ala Ser Thr Ser Arg Gly 55 60 Cys Gly Leu Asp Leu Leu Pro Gln Asn Val Tyr Leu Cys Asp Leu Asp 65 70 75 80 Ala Ile Trp Gly Ile Val Val Glu Ala Val Ala Gly Ala Gly Ala Leu 85 90 Ile Thr Leu Leu Met Leu Ile Leu Leu Gly Arg Leu Pro Phe Ile 100 105 110 Lys Glu Lys Glu Lys Lys Ser Pro Ala Val Leu His Phe Leu Phe Leu 115 120 125 Leu Gly Thr Leu Gly 130 133

<210> 2673 <211> 125 <212> PRT <213> Homo sapiens

<400> 2673

Ser Ser Leu Gly Asn Glu Asp Asp Glu Ile Leu Ser Leu Ala Lys Asp

1 5 10 15

Ile Thr Gly Met Phe Val Ala Ser His Arg Lys Met Arg Ala His Gln
20 25 30

Val Leu Thr Phe Leu Leu Leu Phe Val Ile Thr Ser Val Ala Ser Glu 35

Asn Ala Ser Thr Ser Arg Gly Cys Gly Leu Asp Leu Leu Pro Gln Tyr 50

Val Ser Leu Cys Asp Leu Asp Ala Ile Trp Gly Ile Val Val Glu Ala 65

70

Ala Ala Gly Ala Gly Ala Leu Ile Thr Leu Leu Met Leu Ile Leu 85

Leu Val Arg Leu Pro Phe Phe Lys Glu Lys Glu Lys Lys Ser Pro Val 100

Gly Leu His Phe Leu Phe Leu Leu Gly Thr Leu Gly Pro 115

<210> 2674 <211> 310 <212> PRT <213> Homo sapiens

<400> 2674 Glu Arg Leu Cys Phe Pro Cys Met Gln Ser Lys Ile Tyr Ser Tyr Met 10 Ser Pro Asn Lys Cys Ser Gly Met Arg Phe Pro Leu Gln Glu Glu Asn 20 25 Ser Val Thr His His Glu Val Lys Cys Gln Gly Lys Pro Leu Ala Gly 40 Ile Tyr Arg Lys Arg Glu Glu Lys Arg Asn Ala Gly Asn Ala Val Arg Ser Ala Met Lys Ser Glu Glu Gln Lys Ile Lys Asp Ala Arg Lys Gly 70 75 Pro Leu Val Pro Phe Pro Asn Gln Lys Ser Glu Ala Ala Glu Pro Pro 90 85 Lys Thr Pro Pro Ser Ser Cys Asp Ser Thr Asn Ala Ala Ile Ala Lys 100 105 Gln Ala Leu Lys Lys Pro Ile Lys Gly Lys Gln Ala Pro Arg Lys Lys 120 125 115 Ala Gln Gly Lys Thr Gln Gln Asn Arg Lys Leu Thr Asp Phe Tyr Pro 135 140 Val Arg Arg Ser Ser Arg Lys Ser Lys Ala Glu Leu Gln Ser Glu Glu 150 155 Arg Lys Arg Ile Asp Glu Leu Ile Glu Ser Gly Lys Glu Glu Gly Met 170 Lys Ile Asp Leu Ile Asp Gly Lys Gly Arg Gly Val Ile Ala Thr Lys 185 Gln Phe Ser Arg Gly Asp Phe Val Val Glu Tyr His Gly Asp Leu Ile 200 195 205 Glu Ile Thr Asp Ala Lys Lys Arg Glu Ala Leu Tyr Ala Gln Asp Pro 215 220 Ser Thr Gly Cys Tyr Met Tyr Tyr Phe Gln Tyr Leu Ser Lys Thr Tyr . 230 235 Cys Val Asp Ala Thr Arg Glu Thr Asn Arg Leu Gly Arg Leu Ile Asn 245 250 255 His Ser Lys Cys Gly Asn Cys Gln Thr Lys Leu His Asp Ile Asp Gly 260 270 265 Val Pro His Leu Ile Leu Ile Ala Ser Arg Asp Ile Ala Ala Gly Glu 280 Glu Leu Leu Tyr Asp Tyr Gly Asp Arg Ser Lys Ala Ser Ile Glu Ala 295 300 His Pro Trp Leu Lys His 305

<210> 2675 <211> 288 <212> PRT <213> Homo sapiens

<400> 2675 Pro Gly Ser Thr Ile Ser Cys Ser Glu Leu Lys Gly Thr Gln Cys Arg 10 Ala Thr Ala Gly Ser Arg Gly Arg Arg Pro Pro Met Thr Cys Trp Leu Arg Gly Val Thr Ala Thr Phe Gly Arg Pro Ala Glu Trp Pro Gly Tyr 35 Leu Ser His Leu Cys Gly Arg Ser Ala Ala Met Asp Leu Gly Pro Met 50 55 60 Arg Lys Ser Tyr Arg Gly Asp Arg Glu Ala Phe Glu Glu Thr His Leu 65 70 75 80 Thr Ser Leu Asp Pro Val Lys Gln Phe Ala Ala Trp Phe Glu Glu Ala 85 90 Val Gln Cys Pro Asp Ile Gly Glu Ala Asn Ala Met Cys Leu Ala Thr 105 100 110 Cys Thr Arg Asp Gly Lys Pro Ser Ala Arg Met Leu Leu Leu Lys Gly 115 120 125 Phe Gly Lys Asp Gly Phe Arg Phe Phe Thr Asn Phe Glu Ser Arg Lys 135 140 Gly Lys Glu Leu Asp Ser Asn Pro Phe Ala Ser Leu Val Phe Tyr Trp 150 155 160 Glu Pro Leu Asn Arg Gln Val Arg Val Glu Gly Pro Val Lys Lys Leu 165 170 175 Pro Glu Glu Glu Ala Glu Cys Tyr Phe His Ser Arg Pro Lys Ser Ser 180 185 190 Gln Ile Gly Ala Val Val Ser His Gln Ser Ser Val Ile Pro Asp Arg 195 200 205 Glu Tyr Leu Arg Lys Lys Asn Glu Glu Leu Glu Gln Leu Tyr Gln Asp 215 210 220 Gln Glu Val Pro Lys Pro Lys Ser Trp Gly Gly Tyr Val Leu Tyr Pro 225 230 235 240 Gln Val Met Glu Phe Trp Gln Gly Gln Thr Asn Arg Leu His Asp Arg 245 250 255 Ile Val Phe Arg Arg Gly Leu Pro Thr Gly Asp Ser Pro Leu Gly Pro 265 270 Met Thr His Arg Gly Glu Glu Asp Trp Leu Tyr Glu Arg Leu Ala Pro 280 285

<210> 2676 <211> 327 <212> PRT <213> Homo sapiens

Pro Asn Glu Lys Tyr Leu Leu Arg Leu Leu Asp Lys Thr Thr Val Ser 70 75 His Asn Thr Lys Arg Phe Arg Phe Ala Leu Pro Thr Ala His His Thr Leu Gly Leu Pro Val Gly Lys His Ile Tyr Leu Ser Thr Arg Ile Asp 105 100 Gly Ser Leu Val Ile Arg Pro Tyr Thr Pro Val Thr Ser Asp Glu Asp 115 120 125 Gln Gly Tyr Val Asp Leu Val Ile Lys Val Tyr Leu Lys Gly Val His 135 Pro Lys Phe Pro Glu Gly Gly Lys Met Ser Gln Tyr Leu Asp Ser Leu 150 155 Lys Val Gly Asp Val Val Glu Phe Arg Gly Pro Ser Gly Leu Leu Thr 165 170 Tyr Thr Gly Lys Gly His Phe Asn Ile Gln Pro Asn Lys Lys Ser Pro 180 185 Pro Glu Pro Arg Val Ala Lys Lys Leu Gly Met Ile Ala Gly Gly Thr 200 205 195 Gly Ile Thr Pro Met Leu Gln Leu Ile Arg Ala Ile Leu Lys Val Pro 220 215 Glu Asp Pro Thr Gln Cys Phe Leu Leu Phe Ala Asn Gln Thr Glu Lys 230 235 Asp Ile Ile Leu Arg Glu Asp Leu Glu Glu Leu Gln Ala Arg Tyr Pro 245 250 Asn Arg Phe Lys Leu Trp Phe Thr Leu Asp His Pro Pro Lys Asp Trp 260 265 270 Ala Tyr Ser Lys Gly Phe Val Thr Ala Asp Met Ile Arg Glu His Leu 280 285 Pro Ala Pro Gly Asp Asp Val Leu Val Leu Cys Gly Pro Pro Pro 295 300 Met Val Gln Leu Ala Cys His Pro Asn Leu Asp Lys Leu Gly Tyr Ser 310 315 Gln Lys Met Arg Phe Thr Tyr 325 327

<210> 2677 <211> 322 <212> PRT <213> Homo sapiens

<400> 2677 Leu Gln Ser Ala Gly Glu Gly Val Thr His Val Leu Ile Leu Leu Glu 10 Ser Pro Ala Arg Pro Val Ala Ala Val Thr Gln Val Gln Arg Arg Arg 20 25 Tyr His Arg Leu Ser Asp Met Ser Met Leu Ala Glu Arg Arg Arg Lys 40 Gln Lys Trp Ala Val Asp Pro Gln Asn Thr Ala Trp Ser Asn Asp Asp 55 Ser Lys Phe Gly Gln Arg Met Leu Glu Lys Met Gly Trp Ser Lys Gly 70 Lys Gly Leu Gly Ala Gln Glu Gln Gly Ala Thr Asp His Ile Lys Val 90 85 Gln Val Lys Asn Asn His Leu Gly Leu Gly Ala Thr Ile Asn Asn Glu 105 Asp Asn Trp Ile Ala His Gln Asp Asp Phe Asn Gln Leu Leu Ala Glu 120 Leu Asn Thr Cys His Gly Gln Glu Thr Thr Asp Ser Ser Asp Lys Lys 140 135 Glu Lys Lys Ser Phe Ser Leu Glu Glu Lys Ser Lys Ile Ser Lys Asn 155 150

Arg Val His Tyr Met Lys Phe Thr Lys Gly Lys Asp Leu Ser Ser Arg 165 170 Ser Lys Thr Asp Leu Asp Cys Ile Phe Gly Lys Arg Gln Ser Lys Lys 180 185 190 Thr Pro Glu Gly Asp Ala Ser Pro Ser Thr Pro Glu Glu Asn Glu Thr 200 205 Thr Thr Thr Ser Ala Phe Thr Ile Gln Glu Tyr Phe Ala Lys Arg Met 215 220 Ala Ala Leu Lys Asn Lys Pro Gln Val Pro Val Pro Gly Ser Asp Ile 230 235 Ser Glu Thr Gln Val Glu Arg Lys Arg Gly Lys Lys Arg Asn Lys Glu 245 250 255 Ala Thr Gly Lys Asp Val Glu Ser Tyr Leu Gln Pro Lys Ala Lys Arg 265 260 His Thr Glu Gly Lys Pro Glu Arg Ala Glu Ala Gln Glu Arg Val Ala 280 275 285 Lys Lys Lys Ser Ala Pro Ala Glu Glu Glu Leu Arg Gly Pro Cys Trp 295 300 Asp Gln Ser Ser Lys Ala Ser Ala Gln Asp Ala Gly Asp His Val Gln 310 315 Pro Ala 322

<210> 2678 <211> 88 <212> PRT <213> Homo sapiens

<400> 2678

<210> 2679 <211> 320 <212> PRT <213> Homo sapiens

Lys Met Leu Met Asn Ile Gln Thr Gln Asn Lys Val Ile Thr Tyr Ile Ala Cys Leu Met Gln Met Tyr Phe Phe Ile Leu Phe Ala Gly Phe Glu Asn Phe Leu Leu Ser Val Met Ala Tyr Asp Arg Phe Val Ala Ile Cys His Pro Leu His Tyr Met Val Ile Met Asn Pro His Leu Cys Gly Leu Leu Val Leu Ala Ser Trp Thr Met Ser Ala Leu Tyr Ser Leu Leu Gln Ile Leu Met Val Val Arg Leu Ser Phe Cys Thr Ala Leu Glu Ile Pro His Phe Phe Cys Glu Leu Asn Gln Val Ile Gln Leu Ala Cys Ser Asp Ser Phe Leu Asn His Met Val Ile Tyr Phe Thr Val Ala Leu Leu Gly Gly Gly Pro Leu Thr Gly Ile Leu Tyr Ser Tyr Ser Lys Ile Ile Ser Ser Ile His Ala Ile Ser Ser Ala Gln Gly Lys Tyr Lys Ala Phe Ser Thr Cys Ala Ser His Leu Ser Val Val Ser Leu Phe Tyr Gly Ala Ile Leu Gly Val Tyr Leu Ser Ser Ala Ala Thr Arg Asn Ser His Ser Ser Ala Thr Ala Ser Val Met Tyr Thr Val Val Thr Pro Met Leu Asn Pro Phe Ile Tyr Ser Leu Arg Asn Lys Asp Ile Lys Arg Ala Leu Gly Ile His Leu Leu Trp Gly Thr Met Lys Gly Gln Phe Phe Lys Lys Cys Pro 

<210> 2680 <211> 846 <212> PRT <213> Homo sapiens

<400> 2680 Ile Pro Phe Leu Lys Ser Cys Cys Cys Cys Cys Leu Phe Asp Phe Pro Pro Pro Pro Leu Asp Gln Val Glu Glu Glu Cys Glu Val Glu Arg Val Thr Glu His Gly Thr Pro Lys Pro Phe Arg Lys Phe Asp Ser Val Ala Phe Gly Glu Ser Gln Ser Glu Asp Glu Gln Phe Glu Asn Asp Leu Glu Thr Asp Pro Pro Asn Trp Gln Gln Leu Val Ser Arg Glu Val Leu Leu Gly Leu Lys Pro Cys Glu Ile Lys Arg Gln Glu Val Ile Asn Glu Leu Phe Tyr Thr Glu Arg Ala His Val Arg Thr Leu Lys Val Leu Asp Gln Val Phe Tyr Gln Arg Val Ser Arg Glu Gly Ile Leu Ser Pro Ser Glu Leu Arg Lys Ile Phe Ser Asn Leu Glu Asp Ile Leu Gln Leu His Ile Gly Leu Asn Glu Gln Met Lys Ala Val Arg Lys Arg Asn Glu Thr Ser Val Ile Asp Gln Ile Gly Glu Asp Leu Leu Thr Trp Phe Ser Gly

Pro Gly Glu Glu Lys Leu Lys His Ala Ala Ala Thr Phe Cys Ser Asn Gln Pro Phe Ala Leu Glu Met Ile Lys Ser Arg Gln Lys Lys Asp Ser Arg Phe Gln Thr Phe Val Gln Asp Ala Glu Ser Asn Pro Leu Cys Arg Arg Leu Gln Leu Lys Asp Ile Ile Pro Thr Gln Met Gln Arg Leu Thr Lys Tyr Pro Leu Leu Leu Asp Asn Ile Ala Thr Tyr Thr Glu Trp Pro Thr Glu Arg Glu Lys Val Lys Lys Ala Ala Asp His Cys Arg Gln Ile Leu Asn Tyr Val Asn Gln Ala Val Lys Glu Ala Glu Asn Lys Gln Arg Leu Glu Asp Tyr Gln Arg Arg Leu Asp Thr Ser Ser Leu Lys Leu Ser Glu Tyr Pro Asn Val Glu Glu Leu Arg Asn Leu Asp Leu Thr Lys Arg Lys Met Ile His Glu Gly Pro Leu Val Trp Lys Val Asn Arg Asp Lys Thr Ile Asp Leu Tyr Thr Leu Leu Leu Glu Asp Ile Leu Val Leu Leu Gln Lys Gln Asp Asp Arg Leu Val Leu Arg Cys His Ser Lys Ile Leu Ala Ser Thr Ala Asp Ser Lys His Thr Phe Ser Pro Val Ile Lys Leu Ser Thr Val Leu Val Arg Gln Val Ala Thr Asp Asn Lys Ala Leu Phe Val Ile Ser Met Ser Asp Asn Gly Ala Gln Ile Tyr Glu Leu Val Ala Gln Thr Val Ser Glu Lys Thr Val Trp Gln Asp Leu Ile Cys Arg Met Ala Ala Ser Val Lys Glu Gln Ser Thr Lys Pro Ile Pro Leu Pro Gln Ser Thr Pro Gly Glu Gly Asp Asn Asp Glu Glu Asp Pro Ser Lys Leu Lys Glu Glu Gln His Gly Ile Ser Val Thr Gly Leu Gln Ser Pro Asp Arg Asp Leu Gly Leu Glu Ser Thr Leu Ile Ser Ser Lys Pro Gln Ser His Ser Leu Ser Thr Ser Gly Lys Ser Glu Val Arg Asp Leu Phe Val Ala Glu Arg Gln Phe Ala Lys Glu Gln His Thr Asp Gly Thr Leu Lys Glu Val Gly Glu Asp Tyr Gln Ile Ala Ile Pro Asp Ser His Leu Pro Val Ser Glu Glu Arg Trp Ala Leu Asp Ala Leu Arg Asn Leu Gly Leu Leu Lys Gln Leu Leu Val Gln Gln Leu Gly Leu Thr Glu Lys Ser Val Gln Glu Asp Trp Gln His Phe Pro Arg Tyr Arg Thr Ala Ser Gln Gly Pro Gln Thr Asp Ser Val Ile Gln Asn Ser Glu Asn Ile Lys Ala Tyr His Ser Gly Glu Gly His Met Pro Phe Arg Thr Gly Thr Gly Asp Ile Ala Thr Cys Tyr Ser Pro Arg Thr Ser Thr Glu Ser Phe Ala Pro Arg Asp Ser Val Gly Leu Ala Pro Gln Asp Ser Gln Ala Ser Asn Ile Leu Val Met Asp His Met Ile Met Thr Pro Glu Met Pro Thr Met Glu Pro Glu Gly Gly Leu Asp Asp Ser Gly Glu His Phe Phe Asp Ala Arg Glu 

Ala His Ser Asp Glu Asn Pro Ser Glu Gly Asp Gly Ala Val Asn Lys 695 Glu Glu Lys Asp Val Asn Leu Arg Ile Ser Gly Asn Tyr Leu Ile Leu 715 710 Asp Gly Tyr Asp Pro Val Gln Glu Ser Ser Thr Asp Glu Glu Val Ala 730 725 Ser Ser Leu Thr Leu Gln Pro Met Thr Gly Ile Pro Ala Val Glu Ser 740 745 Thr His Gln Gln Gln His Ser Pro Gln Asn Thr His Ser Asp Gly Ala 755 760 Ile Ser Pro Phe Thr Pro Glu Phe Leu Val Gln Gln Arg Trp Gly Ala 775 780 Met Glu Tyr Ser Cys Phe Glu Ile Gln Ser Pro Ser Ser Cys Ala Asp 790 795 Ser Gln Ser Gln Ile Met Glu Tyr Ile His Lys Ile Glu Ala Asp Leu 810 805 Glu His Leu Lys Lys Val Glu Glu Ser Tyr Thr Ile Leu Cys Gln Arg 825 830 820 Leu Ala Gly Ser Ala Leu Thr Asp Lys His Ser Asp Lys Ser 840

<210> 2681 <211> 700 <212> PRT <213> Homo sapiens

(213) Homo Supremo

<400> 2681 Ala Val Glu Phe Ala Glu Gly Ala Leu Thr Met Ala Pro Trp Pro Glu . 10 Leu Gly Asp Ala Gln Pro Asn Pro Asp Lys Tyr Leu Glu Gly Ala Ala 25 20 Gly Gln Gln Pro Thr Ala Pro Asp Lys Ser Lys Glu Thr Asn Lys Thr 40 Asp Asn Thr Glu Ala Pro Val Thr Lys Ile Glu Leu Leu Pro Ser Tyr 55 Ser Thr Ala Thr Leu Ile Asp Glu Pro Thr Glu Val Asp Asp Pro Trp 70 Asn Leu Pro Thr Leu Gln Asp Ser Gly Ile Lys Trp Ser Glu Arg Asp 90 85 Thr Lys Gly Lys Ile Leu Cys Phe Phe Gln Gly Ile Gly Arg Leu Ile 105 110 100 Leu Leu Leu Gly Phe Leu Tyr Phe Phe Val Cys Ser Leu Asp Ile Leu 125 120 Ser Ser Ala Phe Gln Leu Val Gly Gly Lys Met Ala Gly Gln Phe Phe 140 135 Ser Asn Ser Ser Ile Met Ser Asn Pro Leu Gly Leu Val Ile Gly 150 155 Val Leu Val Thr Val Leu Val Gln Ser Ser Ser Thr Ser Thr Ser Ile 170 165 Val Val Ser Met Val Ser Ser Ser Leu Leu Thr Val Arg Ala Ala Ile 185 180 Pro Ile Ile Met Gly Ala Asn Ile Gly Thr Ser Ile Thr Asn Thr Ile 200 205 Val Ala Leu Met Gln Val Gly Asp Arg Ser Glu Phe Arg Arg Ala Phe 220 215 Ala Gly Ala Thr Val His Asp Phe Phe Asn Trp Leu Ser Val Leu Val 235 230 Leu Leu Pro Val Glu Val Ala Thr His Tyr Leu Glu Ile Ile Thr Gln 250 255 Leu Ile Val Glu Ser Phe His Phe Lys Asn Gly Glu Asp Ala Pro Asp 265 270

```
Leu Leu Lys Val Ile Thr Lys Pro Phe Thr Lys Leu Ile Val Gln Leu
      275
                       280
Asp Lys Lys Val Ile Ser Gln Ile Ala Met Asn Asp Glu Lys Ala Lys
                 295
                             300
Asn Lys Ser Leu Val Lys Ile Trp Cys Lys Thr Phe Thr Asn Lys Thr
               310
                        315
Gln Ile Asn Val Thr Val Pro Ser Thr Ala Asn Cys Thr Ser Pro Ser
      325 330 335
Leu Cys Trp Thr Asp Gly Ile Gln Asn Trp Thr Met Lys Asn Val Thr
                 345
         340
Tyr Lys Glu Asn Ile Ala Lys Cys Gln His Ile Phe Val Asn Phe His
                      360
Leu Pro Asp Leu Ala Val Gly Thr Ile Leu Leu Ile Leu Ser Leu Leu
                   375
                                   380
Val Leu Cys Gly Cys Leu Ile Met Ile Val Lys Ile Leu Gly Ser Val
              390
                             395
Leu Lys Gly Gln Val Ala Thr Val Ile Lys Lys Thr Ile Asn Thr Asp
                            410
Phe Pro Phe Pro Phe Ala Trp Leu Thr Gly Tyr Leu Ala Ile Leu Val
                425
        420
Gly Ala Gly Met Thr Phe Ile Val Gln Ser Ser Val Phe Thr Ser
     435
                     440
Ala Leu Thr Pro Leu Ile Gly Ile Gly Val Ile Thr Ile Glu Arg Ala
         455
                           460
Tyr Pro Leu Thr Leu Gly Ser Asn Ile Gly Thr Thr Thr Thr Ala Ile
              470
                                 475
Leu Ala Ala Leu Ala Ser Pro Gly Asn Ala Leu Arg Ser Ser Leu Gln
           485
                     490
Ile Ala Leu Cys His Phe Phe Phe Asn Ile Ser Gly Ile Leu Leu Trp
        500 505
                                         510
Tyr Pro Ile Pro Phe Thr Arg Leu Pro Ile Arg Met Ala Lys Gly Leu
   515 520 525 .
Gly Asn Ile Ser Ala Lys Tyr Arg Trp Phe Ala Val Phe Tyr Leu Ile
                  535
                                   540
Ile Phe Phe Phe Leu Ile Pro Leu Thr Val Phe Gly Leu Ser Leu Ala
               550
                                 555
Gly Trp Arg Val Leu Val Gly Val Gly Val Pro Val Val Phe Ile Ile
                 570 575
           565
Ile Leu Val Leu Cys Leu Arg Leu Leu Gln Ser Arg Cys Pro Arg Val
      580 585 590
Leu Pro Lys Lys Leu Gln Asn Trp Asn Phe Leu Pro Leu Trp Met Arg
                             605
     595 600
Ser Leu Lys Pro Trp Asp Ala Val Val Ser Lys Phe Thr Gly Cys Phe
                  615
Gln Met Arg Cys Cys Cys Cys Cys Arg Val Cys Cys Arg Ala Cys Cys
               630
                               635
Leu Leu Cys Gly Cys Pro Lys Cys Cys Arg Cys Ser Lys Cys Cys Glu
                             650
            645
Asp Leu Glu Glu Ala Gln Glu Gly Gln Asp Val Pro Val Lys Ala Pro
         660
                         665
                                 670
Glu Thr Phe Asp Asn Ile Thr Ile Ser Arg Glu Ala Gln Gly Glu Val
                      680
Pro Ala Ser Asp Ser Lys Thr Glu Cys Thr Ala Leu
                  695
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<210> 2682

<211> 448

<212> PRT

<213> Homo sapiens

<400> 2682

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Ser Gln Gln Gly Ser Gln Pro His Arg Gln Gly Pro Pro Ser Leu Leu
                                  10
Thr Ala Pro His Ser Leu Asp Leu Pro Ala Leu Pro Pro Gly Pro Arg
Gly Ser Gln Gly Lys Leu Arg Arg Val Leu Val Pro Met Ser Val Lys
Pro Ser Trp Gly Pro Gly Pro Ser Glu Gly Val Thr Ala Val Pro Thr
                     55
Ser Asp Leu Gly Glu Ile His Asn Trp Thr Glu Leu Leu Asp Leu Phe
Asn His Thr Leu Ser Glu Cys His Val Glu Leu Ser Gln Ser Thr Lys
                               . 90
               85
Arg Val Val Leu Phe Ala Leu Tyr Leu Ala Met Phe Val Val Gly Leu
                             105
Val Glu Asn Leu Leu Val Ile Cys Val Asn Trp Arg Gly Ser Gly Arg
                         120
                                            125
Ala Gly Leu Met Asn Leu Tyr Ile Leu Asn Met Ala Ile Ala Asp Leu
            . 135
                               140
  130
Gly Ile Val Leu Ser Leu Pro Val Trp Met Leu Glu Val Thr Leu Asp
               150
                            155
Tyr Thr Trp Leu Trp Gly Ser Phe Ser Cys Arg Phe Thr His Tyr Phe
165 170 175
Tyr Phe Val Asn Met Tyr Ser Ser Ile Phe Phe Leu Val Cys Leu Ser
         180 185
Val Asp Arg Tyr Val Thr Leu Thr Ser Ala Ser Pro Ser Trp Gln Arg
                         200
                                            205
Tyr Gln His Arg Val Arg Arg Ala Met Cys Ala Gly Ile Trp Val Leu
                      215
Ser Ala Ile Ile Pro Leu Pro Glu Val Val His Ile Gln Leu Val Glu
           230
                                   235
Gly Pro Glu Pro Met Cys Leu Phe Met Ala Pro Phe Glu Thr Tyr Ser
                      250
             245
Thr Trp Ala Leu Ala Val Ala Leu Ser Thr Thr Ile Leu Gly Phe Leu
                              265
                                                270
Leu Pro Phe Pro Leu Ile Thr Val Phe Asn Val Leu Thr Ala Cys Arg
                         280
Leu Arg Gln Pro Gly Gln Pro Lys Ser Arg Arg His Cys Leu Leu Leu
                                        300
                     295
Cys Ala Tyr Val Ala Val Phe Val Met Cys Trp Leu Pro Tyr His Val
                                   315
               310
Thr Leu Leu Leu Thr Leu His Gly Thr His Ile Ser Leu His Cys
                                330
His Leu Val His Leu Leu Tyr Phe Phe Tyr Asp Val Ile Asp Cys Phe
                            345
          340
                                               350
Ser Met Leu His Cys Val Ile Asn Pro Ile Leu Tyr Asn Phe Leu Ser
                         360
       355
Pro His Phe Arg Gly Arg Leu Leu Asn Ala Val Val His Tyr Leu Pro
                     375
                                        380
Lys Asp Gln Thr Lys Ala Gly Thr Cys Ala Ser Ser Ser Ser Cys Ser
                  390
                                     395
Thr Gln His Ser Ile Ile Ile Thr Lys Gly Asp Ser Gln Pro Ala Ala
                        410
              405
Ala Ala Pro His Pro Glu Pro Ser Leu Ser Phe Gln Ala His His Leu
                            425
Leu Pro Asn Thr Ser Pro Ile Ser Pro Thr Gln Pro Leu Thr Pro Ser
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<210> 2683

<211> 294

<212> PRT

## <213> Homo sapiens

<400> 2683 Ala Ala Gly Ala Gly Ala Asp Gly Arg Glu Pro Ala Ser Glu Arg Ala 10 Ser Arg Ala Glu Pro Pro Ala Val Ala Met Gly Gln Asn Asp Leu Met 20 25 Gly Thr Ala Glu Asp Phe Ala Asp Gln Phe Leu Arg Val Thr Lys Gln 40 45 Tyr Leu Pro His Val Ala Arg Leu Cys Leu Ile Ser Thr Phe Leu Glu Asp Gly Ile Arg Met Trp Phe Gln Trp Ser Glu Gln Arg Asp Tyr Ile 70 Asp Thr Trp Asn Cys Gly Tyr Leu Leu Ala Ser Ser Phe Val Phe 85 90 Leu Asn Leu Eu Gly Gln Leu Thr Gly Cys Val Leu Val Leu Ser Arg 100 105 110 Asn Phe Val Gln Tyr Ala Cys Phe Gly Leu Phe Gly Ile Ile Ala Leu 125 120 Gln Thr Ile Ala Tyr Ser Ile Leu Trp Asp Leu Lys Phe Leu Met Arg 135 140 Asn Leu Ala Leu Gly Gly Gly Leu Leu Leu Leu Ala Glu Ser Arg 150 155 Ser Glu Gly Lys Ser Met Phe Ala Gly Val Pro Thr Met Arg Glu Ser 170 Ser Pro Lys Gln Tyr Met Gln Leu Gly Gly Arg Val Leu Leu Val Leu 190 180 185 Met Phe Met Thr Leu Leu His Phe Asp Ala Ser Phe Phe Ser Ile Val 200 205 Gln Asn Ile Val Gly Thr Ala Leu Met Ile Leu Val Ala Ile Gly Phe 215 220 Lys Thr Lys Leu Ala Ala Leu Thr Leu Val Val Trp Leu Phe Ala Ile 230 235 Asn Val Tyr Phe Asn Ala Phe Trp Thr Ile Pro Val Tyr Lys Pro Met 245 250 His Asp Phe Leu Lys Tyr Asp Phe Phe Gln Thr Met Ser Val Ile Gly 260 265 270 Gly Leu Leu Val Val Ala Leu Gly Pro Gly Gly Val Ser Met Asp 275 280 Glu Lys Lys Lys Glu Trp 290

<210> 2684 <211> 501 <212> PRT <213> Homo sapiens

<400> 2684

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Ala Leu Glu Gln Phe Glu Gly Pro Cys Ala Val Ile Ala Pro Val
      100 105
Gln Ala Phe Leu Leu Lys Lys Leu Leu Phe Ser Ser Glu Lys Ser Ser
                       120
Trp Arg Asp Cys Ser Gln Glu Glu Gln Lys Glu Leu Leu Cys His Thr
                   135
                                      140
Leu Cys Asp Ile Leu Glu Ser Ala Cys Cys Asp His Ser Gly Ser Tyr
         150
                                  155
Cys Leu Val Sèr Trp Leu Arg Gly Lys Thr Thr Glu Glu Thr Ala Ser
             165
                              170
Ile Ser Gly Ser Pro Ala Glu Ser Ser Cys Gln Val Glu His Ser Ser
          180
                           185
Ala Leu Ala Val Glu Glu Leu Gly Phe Glu Arg Phe His Ala Leu Ile
     195
               200
                                        205
Gln Lys Arg Ser Phe Arg Ser Leu Pro Glu Leu Lys Asp Ala Val Leu
            215
                                     220
Asp Gln Tyr Ser Met Trp Gly Asn Lys Phe Gly Val Leu Leu Phe Leu
         230
                          235
Tyr Ser Val Leu Leu Thr Lys Gly Ile Glu Asn Ile Lys Asn Glu Ile
           245
                              250
Glu Asp Ala Ser Glu Pro Leu Ile Asp Pro Val Tyr Gly His Gly Ser
                           265
Gln Ser Leu Ile Asn Leu Leu Thr Gly His Ala Val Ser Asn Val
                        280
                                         285
Trp Asp Gly Asp Arg Glu Cys Ser Gly Met Lys Leu Leu Gly Ile His
            295
                                     300
Glu Gln Ala Ala Val Gly Phe Leu Thr Leu Met Glu Ala Leu Arg Tyr
                          315
                310
Cys Lys Val Gly Ser Tyr Leu Lys Ile Ser Lys Ile Pro Tyr Leu Asp
             325
                              330
Cys Leu Ala Ser Glu Thr His Leu Thr Val Phe Phe Ala Lys Asp Met
         340 345
Ala Leu Val Ala Pro Glu Ala Pro Ser Glu Gln Ala Arg Arg Val Phe
      355
                        360
                                          365
Gln Thr Tyr Asp Pro Glu Asp Asn Gly Phe Ile Pro Asp Ser Leu Leu
                     375
                                       380
Glu Asp Val Met Lys Ala Leu Asp Leu Val Ser Asp Pro Glu Tyr Ile
                390
                                 · 395
Asn Leu Met Lys Asn Lys Leu Asp Pro Glu Gly Leu Gly Ile Ile Leu
             405
                              410
Leu Gly Pro Phe Leu Gln Glu Phe Phe Pro Asp Gln Gly Ser Ser Gly
          420
                           425
Pro Glu Ser Phe Thr Val Tyr His Tyr Asn Gly Leu Lys Gln Ser Asn
                       440
                                         445
Tyr Asn Glu Lys Val Met Tyr Val Glu Gly Thr Ala Val Val Met Gly
            455
                                    460
Phe Glu Asp Pro Met Leu Gln Thr Asp Asp Thr Pro Ile Lys Arg Cys
          470
                                  475
Leu Gln Thr Lys Trp Pro Tyr Ile Glu Leu Leu Trp Thr Thr Asp Arg
             485
Ser Pro Ser Leu Asn
          500 501
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<210> 2685 <211> 949

<212> PRT

<213> Homo sapiens

Pro Arg Gly Trp Gly Cys Gly Glu Leu Leu Leu Pro Phe Met Leu Leu Gly Thr Leu Cys Glu Pro Gly Ser Gly Gln Ile Arg Tyr Ser Met Pro Glu Glu Leu Asp Lys Gly Ser Phe Val Gly Asn Ile Ala Lys Asp Leu Gly Leu Glu Pro Gln Glu Leu Ala Glu Arg Gly Val Arg Ile Val Ser Arg Gly Arg Thr Gln Leu Phe Ala Leu Asn Pro Arg Ser Gly Ser Leu Val Thr Ala Gly Arg Ile Asp Arg Glu Glu Leu Cys Ala Gln Ser Pro Leu Cys Val Val Asn Phe Asn Ile Leu Val Glu Asn Lys Met Lys Ile Tyr Gly Val Glu Val Glu Ile Ile Asp Ile Asn Asp Asn Phe Pro Arg Phe Arg Asp Glu Glu Leu Lys Val Lys Val Asn Glu Asn Ala Ala Ala Gly Thr Arg Leu Val Leu Pro Phe Ala Arg Asp Ala Asp Val Gly Val Asn Ser Leu Arg Ser Tyr Gln Leu Ser Ser Asn Leu His Phe Ser Leu Asp Val Val Ser Gly Thr Asp Gly Gln Lys Tyr Pro Glu Leu Val Leu Glu Gln Pro Leu Asp Arg Glu Lys Glu Thr Val His Asp Leu Leu Leu 210 、 Thr Ala Leu Asp Gly Gly Asp Pro Val Leu Ser Gly Thr Thr His Ile Arg Val Thr Val Leu Asp Ala Asn Asp Asn Ala Pro Leu Phe Thr Pro Ser Glu Tyr Ser Val Ser Val Pro Glu Asn Ile Pro Val Gly Thr Arg Leu Leu Met Leu Thr Ala Thr Asp Pro Asp Glu Gly Ile Asn Gly Lys 275 280 Leu Thr Tyr Ser Phe Arg Asn Glu Glu Glu Lys Ile Ser Glu Thr Phe Gln Leu Asp Ser Asn Leu Gly Glu Ile Ser Thr Leu Gln Ser Leu Asp Tyr Glu Glu Ser Arg Phe Tyr Leu Met Glu Val Val Ala Gln Asp Gly Gly Ala Leu Val Ala Ser Ala Lys Val Val Val Thr Val Gln Asp Val Asn Asp Asn Ala Pro Glu Val Ile Leu Thr Ser Leu Thr Ser Ser Ile Ser Glu Asp Cys Leu Pro Gly Thr Val Ile Ala Leu Phe Ser Val His Asp Gly Asp Ser Gly Glu Asn Gly Glu Ile Ala Cys Ser Ile Pro Arg Asn Leu Pro Phe Lys Leu Glu Lys Ser Val Asp Asn Tyr Tyr His Leu Leu Thr Thr Arg Asp Leu Asp Arg Glu Glu Thr Ser Asp Tyr Asn Ile Thr Leu Thr Val Met Asp His Gly Thr Pro Pro Leu Ser Thr Glu Ser His Ile Pro Leu Lys Val Ala Asp Val Asn Asp Asn Pro Pro Asn Phe Pro Gln Ala Ser Tyr Ser Thr Ser Val Thr Glu Asn Asn Pro Arg Gly Val Ser Ile Phe Ser Val Thr Ala His Asp Pro Asp Ser Gly Asp Asn Ala Arg Val Thr Tyr Ser Leu Ala Glu Asp Thr Phe Gln Gly Ala Pro Leu Ser Ser Tyr Val Ser Ile Asn Ser Asp Thr Gly Val Leu Tyr Ala 

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Leu Arg Ser Phe Asp Tyr Glu Gln Leu Arg Asp Leu Gln Leu Trp Val
         535 540
Thr Ala Ser Asp Ser Gly Asn Pro Pro Leu Ser Ser Asn Val Ser Leu
               550
                        555
Ser Leu Phe Val Leu Asp Gln Asn Asp Asn Thr Pro Glu Ile Leu Tyr
            565
                             570
Pro Ala Leu Pro Thr Asp Gly Ser Thr Gly Val Glu Leu Ala Pro Arg
                          585
                                          590
         580
Ser Ala Glu Pro Gly Tyr Leu Val Thr Lys Val Val Ala Val Asp Lys
                       600
                                        605
Asp Ser Gly Gln Asn Ala Trp Leu Ser Tyr Arg Leu Leu Lys Ala Ser
                  615
                                    620
Glu Pro Gly Leu Phe Ala Val Gly Leu His Thr Gly Glu Val Arg Thr
          630 635
Ala Arg Ala Leu Leu Asp Arg Asp Ala Leu Lys Gln Ser Leu Val Val
                      650
           645
Ala Val Glu Asp His Gly Gln Pro Pro Leu Ser Ala Thr Phe Thr Val
         660 665
Thr Val Ala Val Ala Asp Arg Ile Pro Asp Ile Leu Ala Asp Leu Gly
                                 685
     675
                      680
Ser Ile Lys Thr Pro Ile Asp Pro Glu Asp Leu Asp Leu Thr Leu Tyr
                                    700
                   695
Leu Val Val Ala Val Ala Ala Val Ser Cys Val Phe Leu Ala Phe Val
        710
                        715
Ile Val Leu Leu Val Leu Arg Leu Arg Trp His Lys Ser Arg Leu
                                    735
            725 730
Leu Gln Ala Glu Gly Ser Arg Leu Ala Gly Val Pro Ala Ser His Phe
                                  750
                          745
Val Gly Val Asp Gly Val Arg Ala Phe Leu Gln Thr Tyr Ser His Glu
                     760
Val Ser Leu Thr Ala Asp Ser Arg Lys Ser His Leu Ile Phe Pro Gln
                    775
                                     780
Pro Asn Tyr Ala Asp Thr Leu Leu Ser Glu Glu Ser Cys Glu Lys Ser
                790
                         795
Glu Pro Leu Leu Met Ser Asp Lys Val Asp Ala Asn Lys Glu Glu Arg
                             810
                                      815
            805
Arg Val Gln Gln Ala Pro Pro Asn Thr Asp Trp Arg Phe Ser Gln Ala
         820 825
Gln Arg Pro Gly Thr Ser Gly Ser Gln Asn Gly Asp Asp Thr Gly Thr
              840
                                       845
      835
Trp Pro Asn Asn Gln Phe Asp Thr Glu Met Leu Gln Ala Met Ile Leu
                   855
                                    860
Ala Ser Ala Ser Glu Ala Ala Asp Gly Ser Ser Thr Leu Gly Gly Gly
                870
                                 875
Ala Gly Thr Met Gly Leu Ser Ala Arg Tyr Gly Pro Gln Phe Thr Leu
           885 890
Gln His Val Leu Gln Gly Glu Leu Gly Ser Asp Tyr Arg Gln Asn Val
         900
                    905
Tyr Ile Pro Gly Ser Asn Ala Thr Leu Thr Asn Ala Ala Gly Lys Arg
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Asp Gly Lys Ala Pro Ala Gly Gly Asn Gly Asn Lys Lys Ser Gly
                    935
Lys Lys Glu Lys Lys
             949
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<210 > 2686 <211 > 185

<212 > PRT

<213 > Homo sapiens

<400 > 2686

Arg Pro Arg Arg Gln Pro Ser Phe Ser Cys Arg Val Leu Val Leu 10 Glu Asp Pro Pro Cys Phe Arg Phe Thr Asn Ser Met Asn Gln Glu Lys 20 25 Leu Ala Lys Leu Gln Ala Gln Val Arg Ile Gly Gly Lys Gly Thr Ala Arg Arg Lys Lys Val Val His Arg Thr Ala Thr Ala Asp Asp Lys Lys Leu Gln Ser Ser Leu Lys Lys Leu Ala Val Asn Asn Ile Ala Gly 70 75 Ile Glu Glu Val Asn Met Ile Lys Asp Asp Gly Thr Val Ile His Phe 85 90 Asn Asn Pro Lys Val Gln Ala Ser Leu Ser Ala Asn Thr Phe Ala Ile 100 105 Thr Gly His Ala Glu Ala Lys Pro Ile Thr Glu Met Leu Pro Gly Ile 115 120 Leu Ser Gln Leu Gly Ala Asp Ser Leu Thr Ser Leu Arg Lys Leu Ala 135 140 Glu Gln Phe Pro Arg Gln Val Leu Asp Ser Lys Ala Pro Lys Pro Glu 150 155 Asp Ile Asp Glu Glu Asp Asp Asp Val Pro Asp Leu Val Glu Asn Phe 170 165 Asp Glu Ala Ser Lys Asn Glu Ala Asn 180

<210> 2687 <211> 421 <212> PRT <213> Homo sapiens

<400> 2687 Ile Pro Gly Ser Thr Ile Ser Trp Ser Pro Ala Ala Ala Arg Gly Leu 10 Ser Val Cys Arg Cys Cys Arg Leu His Pro Ala Ser Ala Met Asp Leu 25 Phe Gly Asp Leu Pro Glu Pro Glu Arg Ser Pro Arg Pro Ala Ala Gly 35 40 Lys Glu Ala Gln Lys Gly Pro Leu Leu Phe Asp Asp Leu Pro Pro Ala 55 Ser Ser Thr Asp Ser Gly Ser Gly Gly Pro Leu Leu Phe Asp Asp Leu 75 Pro Pro Ala Ser Ser Gly Asp Ser Gly Ser Leu Ala Thr Ser Ile Ser 85 90 Gln Met Val Lys Thr Glu Gly Lys Gly Ala Lys Arg Lys Thr Ser Glu 100 105 Glu Glu Lys Asn Gly Ser Glu Glu Leu Val Glu Lys Lys Val Cys Lys 120 125 Ala Ser Ser Val Ile Phe Gly Leu Lys Gly Tyr Val Ala Glu Arg Lys 135 140 Gly Glu Arg Glu Glu Met Gln Asp Ala His Val Ile Leu Asn Asp Ile 150 155 Thr Glu Glu Cys Arg Pro Pro Ser Ser Leu Ile Thr Arg Val Ser Tyr 165 170 Phe Ala Val Phe Asp Gly His Gly Gly Ile Arg Ala Ser Lys Phe Ala 185 190 Ala Gln Asn Leu His Gln Asn Leu Ile Arg Lys Phe Pro Lys Gly Asp 195 200 Val Ile Ser Val Glu Lys Thr Val Lys Arg Cys Leu Leu Asp Thr Phe 215 220 Lys His Thr Asp Glu Glu Phe Leu Lys Gln Ala Ser Ser Gln Lys Pro 235

Ala Trp Lys Asp Gly Ser Thr Ala Thr Cys Val Leu Ala Val Asp Asn .245 250 255 Ile Leu Tyr Ile Ala Asn Leu Gly Asp Ser Arg Ala Ile Leu Cys Arg 260 265 Tyr Asn Glu Glu Ser Gln Lys His Ala Ala Leu Ser Leu Ser Lys Glu 280 His Asn Pro Thr Gln Tyr Glu Glu Arg Met Arg Ile Gln Lys Ala Gly 295 Gly Asn Val Arg Asp Gly Arg Val Leu Gly Val Leu Glu Val Ser Arg 315 310 Ser Ile Gly Asp Gly Gln Tyr Lys Arg Cys Gly Val Thr Ser Val Pro 325 330 Asp Ile Arg Arg Cys Gln Leu Thr Pro Asn Asp Arg Phe Ile Leu Leu 345 Ala Cys Asp Gly Leu Phe Lys Val Phe Thr Pro Glu Glu Ala Val Asn 355 360 365 Phe Ile Leu Ser Cys Leu Glu Asp Glu Lys Ile Gln Thr Arg Glu Gly 370 375 380 Lys Ser Ala Ala Asp Ala Arg Tyr Glu Ala Ala Cys Asn Arg Leu Ala 390 395 Asn Lys Ala Val Gln Arg Gly Ser Ala Asp Asn Val Thr Val Met Val 405 410 Val Arg Ile Gly His 420 421

<210> 2688 <211> 195 <212> PRT <213> Homo sapiens

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<210> 2689

<211> 113 <212> PRT <213> Homo sapiens

<400> 2689 Leu Gly Ala Met Ala Lys His His Pro Asp Leu Ile Phe Cys Arg Lys 10 Gln Ala Gly Val Ala Ile Gly Arg Leu Cys Glu Lys Cys Asp Gly Lys 20 Cys Val Ile Cys Asp Ser Tyr Val Arg Pro Cys Thr Leu Val Arg Ile 40 Cys Asp Glu Cys Asn Tyr Gly Ser Tyr Gln Gly Arg Cys Val Ile Cys 55 50 Gly Gly Pro Gly Val Ser Asp Ala Tyr Tyr Cys Lys Glu Cys Thr Ile 65 70 75 80 Gln Glu Lys Asp Arg Asp Gly Cys Pro Lys Ile Val Asn Leu Gly Ser 85 90 Ser Lys Thr Asp Leu Phe Tyr Glu Arg Lys Lys Tyr Gly Phe Lys Lys 100 · 105 Arg 113

<210> 2690 <211> 1119 <212> PRT <213> Homo sapiens

245

<400> 2690 Ser Gln Leu Arg Lys Gly Ala Ser Ala Thr His Ser Ser Pro Ser Arg 10 Thr Asp Cys Ile Ala Gln Met Met Asp Ile Tyr Val Cys Leu Lys Arg 20 25 30Pro Ser Trp Met Val Asp Asn Lys Arg Met Arg Thr Ala Ser Asn Phe 35 40 35 40 45 Gln Trp Leu Leu Ser Thr Phe Ile Leu Leu Tyr Leu Met Asn Gln Val Asn Ser Gln Lys Lys Gly Ala Pro His Asp Leu Lys Cys Val Thr Asn 70 75 Asn Leu Gln Val Trp Asn Cys Ser Trp Lys Ala Pro Ser Gly Thr Gly 90 Arg Gly Thr Asp Tyr Glu Val Cys Ile Glu Asn Arg Ser Arg Ser Cys 100 105 110 Tyr Gln Leu Glu Lys Thr Ser Ile Lys Ile Pro Ala Leu Ser His Gly 120 125 Asp Tyr Glu Ile Thr Ile Asn Ser Leu His Asp Phe Gly Ser Ser Thr 135 140 Ser Lys Phe Thr Leu Asn Glu Gln Asn Val Ser Leu Ile Pro Asp Thr 150 155 Pro Glu Ile Leu Asn Leu Ser Ala Asp Phe Ser Thr Ser Thr Leu Tyr 165 170 Leu Lys Trp Asn Asp Arg Gly Ser Val Phe Pro His Arg Ser Asn Val 180 185 190 Ile Trp Glu Ile Lys Val Leu Arg Lys Glu Ser Met Glu Leu Val Lys 195 200 205 Leu Val Thr His Asn Thr Thr Leu Asn Gly Lys Asp Thr Leu His His 215 220 Trp Ser Trp Ala Ser Asp Met Pro Leu Glu Cys Ala Ile His Phe Val 230 235 Glu Ile Arg Cys Tyr Ile Asp Asn Leu His Phe Ser Gly Leu Glu Glu

Trp Ser Asp Trp Ser Pro Val Lys Asn Ile Ser Trp Ile Pro Asp Ser Gln Thr Lys Val Phe Pro Gln Asp Lys Val Ile Leu Val Gly Ser Asp Ile Thr Phe Cys Cys Val Ser Gln Glu Lys Val Leu Ser Ala Leu Ile Gly His Thr Asn Cys Pro Leu Ile His Leu Asp Gly Glu Asn Val Ala Ile Lys Ile Arg Asn Ile Ser Val Ser Ala Ser Ser Gly Thr Asn Val Val Phe Thr Thr Glu Asp Asn Ile Phe Gly Thr Val Ile Phe Ala Gly Tyr Pro Pro Asp Thr Pro Gln Gln Leu Asn Cys Glu Thr His Asp Leu Lys Glu Ile Ile Cys Ser Trp Asn Pro Gly Arg Val Thr Ala Leu Val Gly Pro Arg Ala Thr Ser Tyr Thr Leu Val Glu Ser Phe Ser Gly Lys Tyr Val Arg Leu Lys Arg Ala Glu Ala Pro Thr Asn Glu Ser Tyr Gln Leu Leu Phe Gln Met Leu Pro Asn Gln Glu Ile Tyr Asn Phe Thr Leu Asn Ala His Asn Pro Leu Gly Arg Ser Gln Ser Thr Ile Leu Val Asn Ile Thr Glu Lys Val Tyr Pro His Thr Pro Thr Ser Phe Lys Val Lys 455 460 Asp Ile Asn Ser Thr Ala Val Lys Leu Ser Trp His Leu Pro Gly Asn Phe Ala Lys Ile Asn Phe Leu Cys Glu Ile Glu Ile Lys Lys Ser Asn 490 -Ser Val Gln Glu Gln Arg Asn Val Thr Ile Lys Gly Val Glu Asn Ser Ser Tyr Leu Val Ala Leu Asp Lys Leu Asn Pro Tyr Thr Leu Tyr Thr Phe Arg Ile Arg Cys Ser Thr Glu Thr Phe Trp Lys Trp Ser Lys Trp Ser Asn Lys Lys Gln His Leu Thr Thr Glu Ala Ser Pro Ser Lys Gly Pro Asp Thr Trp Arg Glu Trp Ser Ser Asp Gly Lys Asn Leu Ile Ile Tyr Trp Lys Pro Leu Pro Ile Asn Glu Ala Asn Gly Lys Ile Leu Ser Tyr Asn Val Ser Cys Ser Ser Asp Glu Glu Thr Gln Ser Leu Ser Glu Ile Pro Asp Pro Gln His Lys Ala Glu Ile Arg Leu Asp Lys Asn Asp Tyr Ile Ile Ser Val Val Ala Lys Asn Ser Val Gly Ser Ser Pro Pro Ser Lys Ile Ala Ser Met Glu Ile Pro Asn Asp Asp Leu Lys Ile Glu Gln Val Val Gly Met Gly Lys Gly Ile Leu Leu Thr Trp His Tyr Asp Pro Asn Met Thr Cys Asp Tyr Val Ile Lys Trp Cys Asn Ser Ser Arg Ser Glu Pro Cys Leu Met Asp Trp Arg Lys Val Pro Ser Asn Ser Thr Glu Thr Val Ile Glu Ser Asp Glu Phe Arg Pro Gly Ile Arg Tyr Asn Phe Phe Leu Tyr Gly Cys Arg Asn Gln Gly Tyr Gln Leu Leu Arg Ser Met Ile Gly Tyr Ile Glu Glu Leu Ala Pro Ile Val Ala Pro Asn Phe Thr Val Glu Asp Thr Ser Ala Asp Ser Ile Leu Val Lys Trp Glu Asp

Ile Pro Val Glu Glu Leu Arg Gly Phe Leu Arg Gly Tyr Leu Phe Tyr 775 780 Phe Gly Lys Gly Glu Arg Asp Thr Ser Lys Met Arg Val Leu Glu Ser 790 795 785 Gly Arg Ser Asp Ile Lys Val Lys Asn Ile Thr Asp Ile Ser Gln Lys 805 810 Thr Leu Arg Ile Ala Asp Leu Gln Gly Lys Thr Ser Tyr His Leu Val 825 830 Leu Arg Ala Tyr Thr Asp Gly Gly Val Gly Pro Glu Lys Ser Met Tyr 840 835 Val Val Thr Lys Glu Asn Ser Val Gly Leu Ile Ile Ala Ile Leu Ile 855 860 850 Pro Val Ala Val Ala Val Ile Val Gly Val Val Thr Ser Ile Leu Cys 870 875 Tyr Arg Lys Arg Glu Trp Ile Lys Glu Thr Phe Tyr Pro Asp Ile Pro 885 890 Asn Pro Glu Asn Cys Lys Ala Leu Gln Phe Gln Lys Ser Val Cys Glu 900 905 Gly Ser Ser Ala Leu Lys Thr Leu Glu Met Asn Pro Cys Thr Pro Asn 920 925 915 Asn Val Glu Val Leu Glu Thr Arg Ser Ala Phe Pro Lys Ile Glu Asp 940 935 Thr Glu Ile Val Ser Pro Val Ala Glu Arg Pro Glu Asn Arg Ser Asp 950 955 Ala Lys Pro Glu Asn His Val Val Glu Ser Tyr Cys Pro Pro Ile Ile 970 965 Glu Glu Glu Ile Pro Asn Pro Ala Ala Asp Glu Thr Gly Gly Thr Ala 990 985 980 Gln Val Ile Tyr Ile Asp Val Gln Ser Met Tyr Gln Pro Gln Ala Lys 1000 1005 995 Pro Glu Glu Glu Glu Glu Asn Asp Pro Val Gly Gly Ala Gly Tyr Lys 1010 1015 1020 Pro Gln Met His Leu Pro Ile Asn Ser Thr Val Glu Asp Ile Ala Ala 1030 1035 1040 1025 Glu Glu Asp Leu Asp Lys Thr Ala Gly Tyr Arg Pro Gln Ala Asn Val 1045 1050 Asn Thr Trp Asn Leu Val Ser Pro Asp Ser Pro Arg Ser Ile Asp Ser 1060 1065 1070 Asn Ser Glu Ile Val Ser Phe Gly Ser Pro Cys Ser Ile Asn Ser Arg 1080 1085 1075 Gln Phe Leu Ile Pro Pro Lys Asp Glu Asp Ser Pro Lys Ser Asn Gly 1090 1095 1100 Gly Gly Trp Ser Phe Thr Asn Phe Phe Gln Asn Lys Pro Asn Asp 1105 1110

<210> 2691 <211> 1685 <212> PRT <213> Homo sapiens

Thr Lys Glu Glu Ile Ile Glu Leu Leu Val Leu Glu Gln Tyr Leu Thr 90 -Ile Ile Pro Glu Lys Leu Lys Pro Trp Val Arg Ala Lys Lys Pro Glu Asn Cys Glu Lys Leu Val Thr Leu Leu Glu Asn Tyr Lys Glu Met Tyr Gln Pro Glu Gly Glu Ser Leu His Gly Val Leu Val Val Ser Ala Gly Leu Arg Cys Pro Leu Gly Leu Ser Ala Ser Thr Leu Leu Thr Trp Ser Gly Leu Asp Asn Ser Leu Ser Trp Ala Ala Val.Gly Met Ser Cys Val 165 170 Leu Trp Asp Ile Glu Leu His His Asp Phe Leu Gly Val Ala Thr Lys Ser Val Ser Thr His Ala Gln Gly Asp Ala Ala Gln Gly Leu Gly Gly Thr Ile Val Arg Met Trp Ala Arg Asp Ser Asn Leu Ala Thr Gly Val Leu Leu Asp Asp Asn Asn Ser Asp Val Thr Ser Asp Asp Met Thr Arg Asn Arg Arg Glu Ser Ser Pro Pro His Ser Val His Ser Phe Ser Gly Asp Arg Asp Trp Asp Arg Arg Gly Arg Ser Arg Asp Thr Glu Pro Arg Asp Arg Trp Ser His Thr Arg Asn Pro Arg Ser Arg Met Pro Pro Arg Asp Leu Ser Leu Pro Val Val Ala Lys Thr Ser Phe Glu Met Asp Arg Glu Asp Asp Arg Asp Ser Arg Ala Tyr Glu Ser Arg Ser Gln Asp Ala Glu Ser Tyr Gln Asn Val Val Asp Leu Ala Glu Asp Arg Lys Pro His Asn Thr Ile Gln Asp Asn Met Glu Asn Tyr Arg Lys Leu Leu Ser Leu Gly Val Gln Leu Ala Glu Asp Asp Gly His Ser His Met Thr Gln · 355 360 Gly His Ser Ser Arg Ser Lys Arg Ser Ala Tyr Pro Ser Thr Ser Arg 375 . Gly Leu Lys Thr Met Pro Glu Ala Lys Lys Ser Thr His Arg Arg Gly Ile Cys Glu Asp Glu Ser Ser His Gly Val Ile Met Glu Lys Phe Ile Lys Asp Val Ser Arg Ser Ser Lys Ser Gly Arg Ala Arg Glu Ser Ser Asp Arg Ser Gln Arg Phe Pro Arg Met Ser Asp Asp Asn Trp Lys Asp Ile Ser Leu Asn Lys Arg Glu Ser Val Ile Gln Gln Arg Val Tyr Glu Gly Asn Ala Phe Arg Gly Gly Phe Arg Phe Asn Ser Thr Leu Val Ser 465 470 Arg Lys Arg Val Leu Glu Arg Lys Arg Arg Tyr His Phe Asp Thr Asp Gly Lys Gly Ser Ile His Asp Gln Lys Gly Cys Pro Arg Lys Lys Pro Phe Glu Cys Gly Ser Glu Met Arg Lys Ala Met Ser Val Ser Ser Leu ·520 Ser Ser Leu Ser Ser Pro Ser Phe Thr Glu Ser Gln Pro Ile Asp Phe Gly Ala Met Pro Tyr Val Cys Asp Glu Cys Gly Arg Ser Phe Ser Val Ile Ser Glu Phe Val Glu His Gln Ile Met His Thr Arg Glu Asn Leu Tyr Glu Tyr Gly Glu Ser Phe Ile His Ser Val Ala Val Ser Glu Val 

Gln Lys Ser Gln Val Gly Gly Lys Arg Phe Glu Cys Lys Asp Cys Gly Glu Thr Phe Asn Lys Ser Ala Ala Leu Ala Glu His Arg Lys Ile His Ala Arg Gly Tyr Leu Val Glu Cys Lys Asn Gln Glu Cys Glu Glu Ala Phe Met Pro Ser Pro Thr Phe Ser Glu Leu Gln Lys Ile Tyr Gly Lys 4 645 Asp Lys Phe Tyr Glu Cys Arg Val Cys Lys Glu Thr Phe Leu His Ser Ser Ala Leu Ile Glu His Gln Lys Ile His Phe Gly Asp Asp Lys Asp Asn Glu Arg Glu His Glu Arg Glu Arg Glu Arg Glu Arg Gly Glu Thr Phe Arg Pro Ser Pro Ala Leu Asn Glu Phe Gln Lys Met Tyr Gly Lys Glu Lys Met Tyr Glu Cys Lys Val Cys Gly Glu Thr Phe Leu His Ser Ser Ser Leu Lys Glu His Gln Lys Ile His Thr Arg Gly Asn Pro Phe Glu Asn Lys Gly Lys Val Cys Glu Glu Thr Phe Ile Pro Gly Gln Ser Leu Lys Arg Arg Gln Lys Thr Tyr Asn Lys Glu Lys Leu Cys Asp Phe Thr Asp Gly Arg Asp Ala Phe Met Gln Ser Ser Glu Leu Ser Glu His Gln Lys Ile His Ser Arg Lys Asn Leu Phe Glu Gly Arg Gly Tyr Glu Lys Ser Val Ile His Ser Gly Pro Phe Thr Glu Ser Gln Lys Ser His Thr Ile Thr Arg Pro Leu Glu Ser Asp Glu Asp Glu Lys Ala Phe Thr Ile Ser Ser Asn Pro Tyr Glu Asn Gln Lys Ile Pro Thr Lys Glu Asn Val Tyr Glu Ala Lys Ser Tyr Glu Arg Ser Val Ile His Ser Leu Ala Ser Val Glu Ala Gln Lys Ser His Ser Val Ala Gly Pro Ser Lys Pro Lys Val Met Ala Glu Ser Thr Ile Gln Ser Phe Asp Ala Ile Asn His Gln Arg Val Arg Ala Gly Gly Asn Thr Ser Glu Gly Arg Glu Tyr Ser Arg Ser Val Ile His Ser Leu Val Ala Ser Lys Pro Pro Arg Ser His Asn Gly Asn Glu Leu Val Glu Ser Asn Glu Lys Gly Glu Ser Ser Ile Tyr Ile Ser Asp Leu Asn Asp Lys Arg Gln Lys Ile Pro Ala Arg Glu Asn Pro Cys Glu Gly Gly Ser Lys Asn Arg Asn Tyr Glu Asp Ser Val Ile Gln Ser Val Phe Arg Ala Lys Pro Gln Lys Ser Val Pro Gly Glu 1000 1005 Gly Ser Gly Glu Phe Lys Lys Asp Gly Glu Phe Ser Val Pro Ser Ser 1010 1015 1020 1010 1015 Asn Val Arg Glu Tyr Gln Lys Ala Arg Ala Lys Lys Lys Tyr Ile Glu His Arg Ser Asn Glu Thr Ser Val Ile His Ser Leu Pro Phe Gly Glu Gln Thr Phe Arg Pro Arg Gly Met Leu Tyr Glu Cys Gln Glu Cys Gly 1060 1065 Glu Cys Phe Ala His Ser Ser Asp Leu Thr Glu His Gln Lys Ile His 1075 1080 Asp Arg Glu Lys Pro Ser Gly Ser Arg Asn Tyr Glu Trp Ser Val Ile 

Arg Ser Leu Ala Pro Thr Asp Pro Gln Thr Ser Tyr Ala Gln Glu Gln 1105 1110 1115 1120 Tyr Ala Lys Glu Gln Ala Arg Asn Lys Cys Lys Asp Phe Arg Gln Phe 1125 1130 Phe Ala Thr Ser Glu Asp Leu Asn Thr Asn Gln Lys Ile Tyr Asp Gln 1140 1145 Glu Lys Ser His Gly Glu Glu Ser Gln Gly Glu Asn Thr Asp Gly Glu 1160 1165 Glu Thr His Ser Glu Glu Thr His Gly Gln Glu Thr Ile Glu Asp Pro 1175 1180 Val Ile Gln Gly Ser Asp Met Glu Asp Pro Gln Lys Asp Asp Pro Asp 1195 1190 Asp Lys Ile Tyr Glu Cys Glu Asp Cys Gly Leu Gly Phe Val Asp Leu 1205 1210 1215 Thr Asp Leu Thr Asp His Gln Lys Val His Ser Arg Lys Cys Leu Val 1220 1225 1230 Asp Ser Arg Glu Tyr Thr His Ser Val Ile His Thr His Ser Ile Ser 1235 1240 1245 Glu Tyr Gln Arg Asp Tyr Thr Gly Glu Gln Leu Tyr Glu Cys Pro Lys 1250 1255 1260 Cys Gly Glu Ser Phe Ile His Ser Ser Phe Leu Phe Glu His Gln Arq 1270 1275 Ile His Glu Gln Asp Gln Leu Tyr Ser Met Lys Gly Cys Asp Asp Gly 1285 1290 1295 Phe Ile Ala Leu Leu Pro Met Lys Pro Arg Arg Asn Arg Ala Ala Glu 1300 1305 1310 Arg Asn Pro Ala Leu Ala Gly Ser Ala Ile Arg Cys Leu Leu Cys Gly 1315 1320 1325 Gln Gly Phe Ile His Ser Ser Ala Leu Asn Glu His Met Arg Leu His 1330 1335 1340 Arg Glu Asp Asp Leu Leu Glu Gln Ser Gln Met Ala Glu Glu Ala Ile 1345 1350 1355 Ile Pro Gly Leu Ala Leu Thr Glu Phe Gln Arg Ser Gln Thr Glu Glu 1365 1370 1375 Arg Leu Phe Glu Cys Ala Val Cys Gly Glu Ser Phe Val Asn Pro Ala 1380 1385 1390 Glu Leu Ala Asp His Val Thr Val His Lys Asn Glu Pro Tyr Glu Tyr 1395 1400 1405 Gly Ser Ser Tyr Thr His Thr Ser Phe Leu Thr Glu Pro Leu Lys Gly 1410 1415 1420 Ala Ile Pro Phe Tyr Glu Cys Lys Asp Cys Gly Lys Ser Phe Ile His 1425 1430 1435 Ser Thr Val Leu Thr Lys His Lys Glu Leu His Leu Glu Glu Glu Glu 1445 1450 1455 Glu Asp Glu Ala Ala Ala Ala Ala Ala Ala Ala Gln Glu Val Glu 1460 1465 1470 Ala Asn Val His Val Pro Gln Val Val Leu Arg Ile Gln Gly Leu Asn 1485 1475 1480 Val Glu Ala Ala Glu Pro Glu Val Glu Ala Ala Glu Pro Glu Val Glu 1495 1500 Ala Ala Glu Pro Glu Val Glu Ala Ala Glu Pro Asn Gly Glu Ala Glu 1515 1520 1510 Gly Pro Asp Gly Glu Ala Ala Glu Pro Ile Gly Glu Ala Gly Gln Pro 1525 1530 1535 Asn Gly Glu Ala Glu Gln Pro Asn Gly Asp Ala Asp Glu Pro Asp Gly 1545 1550 Ala Gly Ile Glu Asp Pro Glu Glu Arg Ala Glu Glu Pro Glu Gly Lys 1555 1560 1565 Ala Glu Glu Pro Glu Gly Asp Ala Asp Glu Pro Asp Gly Val Gly Ile 1575 1580 Glu Asp Pro Glu Glu Gly Glu Asp Gln Glu Ile Gln Val Glu Glu Pro 1590 1595 Tyr Tyr Asp Cys His Glu Cys Thr Glu Thr Phe Thr Ser Ser Thr Ala 1610

Phe Ser Glu His Leu Lys Thr His Ala Ser Met Ile Ile Phe Glu Pro
1620 1625 1630

Ala Asn Ala Phe Gly Glu Cys Ser Gly Tyr Ile Glu Arg Ala Ser Thr
1635 1640 1645

Ser Thr Gly Gly Ala Asn Gln Ala Asp Glu Lys Tyr Phe Lys Cys Asp
1650 1655 1660

Val Cys Gly Gln Leu Phe Asn Asp His Leu Ser Leu Ala Arg His Gln
1665 1670 1675 1680

Asn Thr His Thr Gly
1685

<210> 2692 <211> 449 <212> PRT <213> Homo sapiens

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<400> 2692 Gly Arg Pro Arg Ser Ser Ser Asp Asn Arg Asn Phe Leu Arg Glu Arg 5 10 Ala Gly Leu Ser Ser Ala Ala Val Gln Thr Arg Ile Gly Asn Ser Ala 20 25 30 Ala Ser Arg Arg Ser Pro Ala Ala Arg Pro Pro Val Pro Ala Pro Pro 35 40 Ala Leu Pro Arg Gly Arg Pro Gly Thr Glu Gly Ser Thr Ser Leu Ser 55 60 Ala Pro Ala Val Leu Val Val Ala Val Val Val Val Val Val Val 70 75 Ser Ala Val Ala Trp Ala Met Ala Asn Tyr Ile His Val Pro Pro Gly 85 90 95 Ser Pro Glu Val Pro Lys Leu Asn Val Thr Val Gln Asp Gln Glu Glu 105 100 His Arg Cys Arg Glu Gly Ala Leu Ser Leu Leu Gln His Leu Arg Pro 115 120 125 His Trp Asp Pro Gln Glu Val Thr Leu Gln Leu Phe Thr Asp Gly Ile 135 140 Thr Asn Lys Leu Ile Gly Cys Tyr Val Gly Asn Thr Met Glu Asp Val · 155 150 Val Leu Val Arg Ile Tyr Gly Asn Lys Thr Glu Leu Leu Val Asp Arg 165 170 175 Asp Glu Glu Val Lys Ser Phe Arg Val Leu Gln Ala His Gly Cys Ala 180 185 190 Pro Gln Leu Tyr Cys Thr Phe Asn Asn Gly Leu Cys Tyr Glu Phe Ile 195 200 205 Gln Gly Glu Ala Leu Asp Pro Lys His Val Cys Asn Pro Ala Ile Phe 215 210 220 Arg Leu Ile Ala Arg Gln Leu Ala Lys Ile His Ala Ile His Ala His 230 235 Asn Gly Trp Ile Pro Lys Ser Asn Leu Trp Leu Lys Met Gly Lys Tyr 245 250 Phe Ser Leu Ile Pro Thr Gly Phe Ala Asp Glu Asp Ile Asn Lys Arg 260 265 Phe Leu Ser Asp Ile Pro Ser Ser Gln Ile Leu Gln Glu Glu Met Thr 275 280 285 Trp Met Lys Glu Ile Leu Ser Asn Leu Gly Ser Pro Val Val Leu Cys 295 300 His Asn Asp Leu Leu Cys Lys Asn Ile Ile Tyr Asn Glu Lys Gln Gly 305 310 315 320 Asp Val Gln Phe Ile Asp Tyr Glu Tyr Ser Gly Tyr Asn Tyr Leu Ala 325 330 Tyr Asp Ile Gly Asn His Phe Asn Glu Phe Ala Gly Val Ser Asp Val 345 340

Asp Tyr Ser Leu Tyr Pro Asp Arg Glu Leu Gln Ser Gln Trp Leu Arg 360 Ala Tyr Leu Glu Ala Tyr Lys Glu Phe Lys Gly Phe Gly Thr Glu Val 375 380 Thr Glu Lys Glu Val Glu Ile Leu Phe Ile Gln Val Asn Gln Phe Ala 395 390 Leu Ala Ser His Phe Phe Trp Gly Leu Trp Ala Leu Ile Gln Ala Lys 405 410 Tyr Ser Thr Ile Glu Phe Asp Phe Leu Gly Tyr Ala Ile Val Arg Phe 420 425 430 Asn Gln Tyr Phe Lys Met Lys Pro Glu Val Thr Ala Leu Lys Val Pro 440 Glu 449

<210> 2693 <211> 245 <212> PRT <213> Homo sapiens

<400> 2693

Pro Glu Ala Gln Thr Ser Ala Val Leu Ala Arg Glu Lys Gly His Leu 10 Pro Thr Met Arg His Glu Ala Pro Met Gln Met Ala Ser Ala Gln Asp 20 25 Ala Arg Tyr Gly Gln Lys Asp Ser Ser Asp Gln Asn Phe Asp Tyr Met 35 40 Phe Lys Leu Leu Ile Ile Gly Asn Ser Ser Val Gly Lys Thr Ser Phe 55 Leu Phe Arg Tyr Ala Asp Asp Ser Phe Thr Ser Ala Phe Val Ser Thr 70 75 Val Gly Ile Asp Phe Lys Val Lys Thr Val Phe Lys Asn Glu Lys Arg 85 90 Ile Lys Leu Gln Ile Trp Asp Thr Ala Gly Gln Glu Arg Tyr Arg Thr 100 105 110 Ile Thr Thr Ala Tyr Tyr Arg Gly Ala Met Gly Phe Ile Leu Met Tyr 115 120 125 Asp Ile Thr Asn Glu Glu Ser Phe Asn Ala Val Gln Asp Trp Ser Thr 130 135 140 Gln Ile Lys Thr Tyr Ser Trp Asp Asn Ala Gln Val Ile Leu Val Gly 150 155 Asn Lys Cys Asp Met Glu Asp Glu Arg Val Ile Ser Thr Glu Arg Gly 165 170 175 Gln His Leu Gly Glu Gln Leu Gly Phe Glu Phe Phe Glu Thr Ser Ala 180 185 190 Lys Asp Asn Ile Asn Val Lys Gln Thr Phe Glu Arg Leu Val Asp Ile 195 200 205 Ile Cys Asp Lys Met Ser Glu Ser Leu Glu Thr Asp Pro Ala Ile Thr 215 Ala Ala Lys Gln Asn Thr Arg Leu Lys Glu Thr Pro Pro Pro Pro Gln 235 Pro Asn Cys Ala Cys

<210> 2694

<211> 1378

<212> PRT

<213> Homo sapiens

245

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Tyr Arg Ile Gly Val Gly Gly Gly Ala Ala Ser Ser Val Gln Val Gln Gly Asp Asn Thr Ser Asp Leu Asp Phe Gly Ala Val Gln Arg Gly Asp Pro Glu Met Glu Gln Lys Met Asn Arg Val Ile Arg Ala Cys Val Glu Ala Pro Lys Gly Asn Pro Ile Cys Ser Leu His Asp Gln Gly Ala Gly Gly Asn Gly Asn Val Leu Lys Glu Leu Ser Asp Pro Ala Gly Ala Ile Ile Tyr Thr Ser Arg Phe Gln Leu Gly Asp Pro Thr Leu Asn Ala Leu Glu Ile Trp Gly Ala Glu Tyr Gln Glu Ser Asn Ala Leu Leu Arg Ser Pro Asn Arg Asp Phe Leu Thr His Val Ser Ala Arg Glu Arg Cys Pro Ala Cys Phe Val Gly Thr Ile Thr Gly Asp Arg Arg Ile Val Leu 63D Val Asp Asp Arg Glu Cys Pro Val Arg Arg Asn Gly Gln Gly Asp Ala Pro Pro Thr Pro Pro Pro Thr Pro Val Asp Leu Glu Leu Glu Trp Val Leu Gly Lys Met Pro Arg Lys Glu Phe Phe Leu Gln Arg Lys Pro Pro Met Leu Gln Pro Leu Ala Leu Pro Pro Gly Leu Ser Val His Gln Ala Leu Glu Arg Val Leu Arg Leu Pro Ala Val Ala Ser Lys Arg Tyr Leu Thr Asn Lys Val Asp Arg Ser Val Gly Gly Leu Val Ala Gln Gln Cys Val Gly Pro Leu Gln Thr Pro Leu Ala Asp Val Ala Val Val Ala Leu Ser His Glu Glu Leu Ile Gly Ala Ala Thr Ala Leu Gly Glu Gln Pro Val Lys Ser Leu Leu Asp Pro Lys Val Ala Ala Arg Leu Ala Val Ala Glu Ala Leu Thr Asn Leu Val Phe Ala Leu Val Thr Asp Leu Arg Asp Val Lys Cys Ser Gly Asn Trp Met Trp Ala Ala Lys Leu Pro Gly Glu Gly Ala Ala Leu Ala Asp Ala Cys Glu Ala Met Val Ala Val Met Ala Ala Leu Gly Val Ala Val Asp Gly Gly Lys Asp Ser Leu Ser Met Ala Ala Arg Val Gly Thr Glu Thr Val Arg Ala Pro Gly Ser Leu Val Ile Ser Ala Tyr Ala Val Cys Pro Asp Ile Thr Ala Thr Val Thr Pro Asp Leu Lys His Pro Glu Gly Arg Gly His Leu Leu Tyr Val Ala Leu Ser Pro Gly Gln His Arg Leu Gly Gly Thr Ala Leu Ala Gln Cys Phe Ser Gln Leu Gly Glu His Pro Pro Asp Leu Asp Leu Pro Glu Asn Leu Val Arg Ala Phe Ser Ile Thr Gln Gly Leu Leu Lys Asp Arg Leu Leu Cys Ser Gly His Asp Val Ser Asp Gly Gly Leu Val Thr Cys Leu Leu Glu Met Ala Phe Ala Gly Asn Cys Gly Leu Gln Val Asp Val Pro Val Pro Arg Val Asp Val Leu Ser Val Leu Phe Ala Glu Glu Pro Gly Leu Val Leu Glu Val Gln Glu Pro Asp Leu Ala Gln Val Leu Lys Arg Tyr 

Arg Asp Ala Gly Leu His Cys Leu Glu Leu Gly His Thr Gly Glu Ala 1015 Gly Pro His Ala Met Val Arg Val Ser Val Asn Gly Ala Val Val Leu 1030 1035 1025 Glu Glu Pro Val Gly Glu Leu Arg Ala Leu Trp Glu Glu Thr Ser Phe 1045 1050 1055 Gln Leu Asp Arg Leu Gln Ala Glu Pro Arg Cys Val Ala Glu Glu Glu 1060 1065 1070 Arg Gly Leu Arg Glu Arg Met Gly Pro Ser Tyr Cys Leu Pro Pro Thr 1075 1080 1085 Phe Pro Lys Ala Ser Val Pro Arg Glu Pro Gly Gly Pro Ser Pro Arg 1090 1095 1100 Val Ala Ile Leu Arg Glu Glu Gly Ser Asn Gly Asp Arg Glu Met Ala 1105 1110 1115 1120 Asp Ala Phe His Leu Ala Gly Phe Glu Val Trp Asp Val Thr Met Gln 1125 1130 1135 Asp Leu Cys Ser Gly Ala Ile Gly Leu Asp Thr Phe Arg Gly Val Ala 1140 1145 1150 Phe Val Gly Gly Phe Ser Tyr Ala Asp Val Leu Gly Ser Ala Lys Gly 1155 1160 1165 Trp Ala Ala Ala Val Thr Phe His Pro Arg Ala Gly Ala Glu Leu Arg 1170 1175 1180 Arg Phe Arg Lys Arg Pro Asp Thr Phe Ser Leu Gly Val Cys Asn Gly 1190 1195 1200 Cys Gln Leu Leu Ala Leu Leu Gly Trp Val Gly Gly Asp Pro Asn Glu 1205 1210 1215 Asp Ala Ala Glu Met Gly Pro Asp Ser Gln Pro Ala Arg Pro Gly Leu 1220 1225 1230 Leu Leu Arg His Asn Leu Ser Gly Arg Tyr Glu Ser Arg Trp Ala Ser 1235 1240 1245 Val Arg Val Gly Pro Gly Pro Ala Leu Met Leu Arg Gly Met Glu Gly 1250 1255 1260 Ala Val Leu Pro Val Trp Ser Ala His Gly Glu Gly Tyr Val Ala Phe 1270 1275 Ser Ser Pro Glu Leu Gln Ala Gln Ile Glu Ala Arg Gly Leu Ala Pro 1285 1290 1295 Leu His Trp Ala Asp Asp Asp Gly Asn Pro Thr Glu Gln Tyr Pro Leu 1300 1305 1310 Asn Pro Asn Gly Ser Pro Gly Gly Val Ala Gly Ile Cys Ser Cys Asp 1315 1320 1325 Gly Arg His Leu Ala Val Met Pro His Pro Glu Arg Ala Val Arg Pro 1330 1335 1340 Trp Gln Trp Ala Trp Arg Pro Pro Pro Phe Asp Thr Leu Thr Thr Ser 1345 1350 1355 1360 Pro Trp Leu Gln Leu Phe Ile Asn Ala Arg Asn Trp Thr Leu Glu Gly 1370 Ser Cys 1378

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85 90 95 85 90 Tyr Ser Trp Leu Leu Asp Gly Phe Pro Arg Thr Leu Pro Gln Ala Glu 105 Ala Leu Asp Arg Ala Tyr Gln Ile Asp Thr Val Ile Asn Leu Asn Val 115 120 125 Pro Phe Glu Val Ile Lys Gln Arg Leu Thr Ala Arg Trp Ile His Pro 135 140 Ala Ser Gly Arg Val Tyr Asn Ile Glu Phe Asn Pro Pro Lys Thr Val 150 155 Gly Ile Asp Asp Leu Thr Gly Glu Pro Leu Ile Gln Arg Glu Asp Asp 165 170 Lys Pro Glu Thr Val Ile Lys Arg Leu Lys Ala Tyr Glu Asp Gln Thr 180 185 190 Lys Pro Val Leu Glu Tyr Tyr Gln Lys Lys Gly Val Leu Glu Thr Phe 195 200 Ser Gly Thr Glu Thr Asn Lys Ile Trp Pro Tyr Val Tyr Ala Phe Leu 210 215 220 Gln Thr Lys Val Pro Gln Arg Ser Gln Lys Ala Ser Val Thr Pro 230 235

<210> 2697

<211> 605 <212> PRT

<213> Homo sapiens

<400> 2697 Lys His Arg Gln Glu Asn Asn Ala Leu Asp Met Ala Pro Glu Ile His Met Thr Gly Pro Met Cys Leu Ile Glu Asn Thr Asn Gly Glu Leu Val Ala Asn Pro Glu Ala Leu Lys Ile Leu Ser Ala Ile Thr Gln Pro Val Val Val Ala Ile Val Gly Leu Tyr Arg Thr Gly Lys Ser Tyr Leu Met Asn Lys Leu Ala Gly Lys Asn Lys Gly Phe Ser Leu Gly Ser Thr Val Lys Ser His Thr Lys Gly Ile Trp Met Trp Cys Val Pro His Pro Lys Lys Pro Glu His Thr Leu Val Leu Leu Asp Thr Glu Gly Leu Gly Asp Val Lys Lys Gly Asp Asn Gln Asn Asp Ser Trp Ile Phe Thr Leu Ala Val Leu Leu Ser Ser Thr Leu Val Tyr Asn Ser Met Gly Thr Ile Asn Gln Gln Ala Met Asp Gln Leu Tyr Tyr Val Thr Glu Leu Thr His Arg Ile Arg Ser Lys Ser Ser Pro Asp Glu Asn Glu Asn Glu Asp Ser Ala Asp Phe Val Ser Phe Phe Pro Asp Phe Val Trp Thr Leu Arg Asp Phe Ser Leu Asp Leu Glu Ala Asp Gly Gln Pro Leu Thr Pro Asp Glu Tyr Leu Glu Tyr Ser Leu Lys Leu Thr Gln Gly Thr Ser Gln Lys Asp Lys Asn Phe Asn Leu Pro Arg Leu Cys Ile Arg Lys Phe Phe Pro Lys Lys Lys Cys Phe Val Phe Asp Leu Pro Ile His Arg Arg Lys Leu Ala Gln Leu Glu Lys Leu Gln Asp Glu Glu Leu Asp Pro Glu Phe Val Gln Gln Val Ala Asp Phe Cys Ser Tyr Ile Phe Ser Asn Ser Lys Thr Lys Thr Leu Ser Gly Gly Ile Lys Val Asn Gly Pro Arg Leu Glu Ser Leu Val Leu Thr Tyr Ile Asn Ala Ile Ser Arg Gly Asp Leu Pro Cys Met Glu Asn Ala Val Leu Ala Leu Ala Gln Ile Glu Asn Ser Ala Ala Val Gln Lys Ala Ile Ala His Tyr Asp Gln Gln Met Gly Gln Lys Val Gln Leu Pro Ala Glu Thr Leu Gln Glu Leu Leu Asp Leu His Arg Val Ser Glu Arg Glu Ala Thr Glu Val Tyr Met Lys Asn Ser Phe Lys Asp Val Asp His Leu Phe Gln Lys Lys Leu Ala Ala Gln Leu Asp Lys Lys Arg Asp Asp Phe Cys Lys Gln Asn Gln Glu Ala Ser Ser Asp Arg Cys Ser Ala Leu Leu Gln Val Ile Phe Ser Pro Leu Glu Glu Glu Val Lys Ala Gly Ile Tyr Ser Lys Pro Gly Gly Tyr Cys Leu Phe Ile Gln Lys Leu . 445 Gln Asp Leu Glu Lys Lys Tyr Tyr Glu Glu Pro Arg Lys Gly Ile Gln

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Ala Glu Glu Ile Leu Gln Thr Tyr Leu Lys Ser Lys Glu Ser Val Thr Asp Ala Ile Leu Gln Thr Asp Gln Ile Leu Thr Glu Lys Glu Lys Glu Ile Glu Val Glu Cys Val Lys Ala Glu Ser Ala Gln Ala Ser Ala Lys Met Val Glu Glu Met Gln Ile Lys Tyr Gln Gln Met Met Glu Glu Lys Glu Lys Ser Tyr Gln Glu His Val Lys Gln Leu Thr Glu Lys Met Glu Arg Glu Arg Ala Gln Leu Leu Glu Glu Glu Glu Lys Thr Leu Thr Ser Lys Leu Gln Glu Gln Ala Arg Val Leu Lys Glu Arg Cys Gln Gly Glu Ser Thr Gln Leu Gln Asn Glu Ile Gln Lys Leu Gln Lys Thr Leu Lys Lys Lys Thr Lys Arg Tyr Met Ser His Lys Leu Lys Ile 

<210> 2698 <211> 295

<212> PRT

<213> Homo sapiens

<400> 2698

Thr Gln Leu Pro Ala Pro Leu Ser Gly Val Leu Ser Arg Leu Gln Leu Gly Ser Gly Ala Pro Leu Leu Thr Trp Val Gln Glu Thr Ala Gly Val 20 . Ala Gly Gly Ala Pro Arg Arg Thr Pro Val Thr Met Trp Arg Leu Leu Ala Arg Ala Ser Ala Pro Leu Leu Arg Val Pro Leu Ser Asp Ser Trp Ala Leu Leu Pro Ala Ser Ala Gly Val Lys Thr Leu Leu Pro Val Pro Ser Phe Glu Asp Val Ser Ile Pro Glu Lys Pro Lys Leu Arg Phe Ile Glu Arg Ala Pro Leu Val Pro Lys Val Arg Arg Glu Pro Lys Asn Leu Ser Asp Ile Arg Gly Pro Ser Thr Glu Ala Thr Glu Phe Thr Glu Gly Asn Phe Ala Ile Leu Ala Leu Gly Gly Gly Tyr Leu His Trp Gly His Phe Glu Met Met Arg Leu Thr Ile Asn Arg Ser Met Asp Pro Lys Asn Met Phe Ala Ile Trp Arg Val Pro Ala Pro Phe Lys Pro Ile Thr Arg Lys Ser Val Gly His Arg Met Gly Gly Gly Lys Gly Ala Ile Asp His Tyr Val Thr Pro Val Lys Ala Gly Arg Leu Val Val Glu Met Gly Gly Arg Cys Glu Phe Glu Glu Val Gln Gly Phe Leu Asp Gln Val Ala His Lys Leu Pro Phe Ala Ala Lys Ala Val Ser Arg Gly Thr Leu Glu Lys Met Arg Lys Asp Gln Glu Glu Arg Glu Arg Asn Asn Gln Asn Pro Trp Thr Phe Glu Arg Ile Ala Thr Ala Asn Met Leu Gly Ile Arg Lys Val Leu Ser Pro Tyr Asp Leu Thr His Lys Gly Lys Tyr Trp Gly Lys 

Phe Tyr Met Pro Lys Arg Val 290 295

> <210> 2699 <211> 375 <212> PRT

<213> Homo sapiens

<400> 2699

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100 105 110 Lys Val Ala Asn Gln Leu Asp Lys Asp His Ala Lys Glu Tyr Lys Lys 115 120 125 Ala Arg Gln Glu Ile Lys Lys Lys Ser Ser Asp Thr Leu Lys Leu Gln 135 140 Lys Lys Ala Lys Lys Gly Arg Gly Asp Ile Gln Pro Gln Leu Asp Ser 155 150 Ala Leu Gln Asp Val Asn Asp Lys Tyr Leu Leu Leu Glu Glu Thr Glu 165 170 Lys Gln Ala Val Arg Lys Ala Leu Ile Glu Glu Arg Gly Arg Phe Cys 185 Thr Phe Ile Ser Met Leu Arg Pro Val Ile Glu Glu Glu Ile Ser Met 195 · 200 205 195 · 200 Leu Gly Glu Ile Thr His Leu Gln Thr Ile Ser Glu Asp Leu Lys Ser 210 215 220 Leu Thr Met Asp Pro His Lys Leu Pro Ser Ser Ser Glu Gln Val Ile 230 235 Leu Asp Leu Lys Gly Ser Asp Tyr Ser Trp Ser Tyr Gln Thr Pro Pro 245 250 Ser Ser Pro Ser Thr Thr Met Ser Arg Lys Ser Ser Val Cys Ser Ser 260 265 270 Leu Asn Ser Val Asn Ser Ser Asp Ser Arg Ser Ser Gly Ser His Ser 275 280 285 His Ser Pro Ser Ser His Tyr Arg Tyr Arg Ser Ser Asn Leu Ala Gln 290 295 300 Gln Ala Pro Val Arg Leu Ser Ser Val Ser Ser His Asp Ser Gly Phe 315 Ile Ser Gln Asp Ala Phe Gln Ser Lys Ser Pro Ser Pro Met Pro Pro 325 330 335 Glu Ala Pro Asn Gln Arg Arg Lys Glu Lys Arg Glu Pro Asp Pro Asn 340 345 350 Gly Gly Gly Pro Thr Thr Ala Ser Gly Pro Pro Ala Ala Ala Glu Glu 360 Ala Gln Arg Pro Arg Ser Met

<210> 2700

<211> 149 <212> PRT <213> Homo sapiens

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(54) Title: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

(57) Abstract: The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

#### INTERNATIONAL SEARCH REPORT

International application No. PCT/US01/03800

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A. CLASSIFICATION OF SUBJECT MATTER					
IPC(7) :C07H 21/04; C07K 5/00; A61K 39/395; C12Q 1/68					
US CL :536/23.1; 530/300; 424/130.1; 435/6 According to Interesting Parent Classification (IRC) as to both national classification and IRC					
According to International Patent Classification (IPC) or to both national classification and IPC  B. FIELDS SEARCHED					
Minimum documentation searched (classification system followed by classification symbols)					
U.S. : 536/25.1; 550/500; +2+/130.1; +35/6					
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Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)					
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C. DOCUMENTS CONSIDERED TO BE RELEVANT					
Category* Citation of document, with indication, where ap	propriate, of the relevant passages Relevant to claim No.				
A VOLLRATH. D. et al. The Human Y Map Based on Naturally Occurring 1992. Vol 258. pages 52-59, see whol	Deletions. Science. October				
Further documents are listed in the continuation of Box	C. See patent family annex.				
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